## THE PORTFOLIO 2024

An insight to Creative Computing Capstone Projects









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This year is a unique year for UTB School of Computing and Informatics (SCI), where there are two graduating cohorts: graduates from the four-year programmes and the three-year programmes. While the four-year graduates of 2024 are the last intake taking the four-year programme, the three-year graduates of 2024 are the first ones to graduate with the new three-year programme structure. The most significant change in this new structure is the introduction of the "SCI Capstone Project".

The SCI Capstone Project aims to provide SCI students with the opportunity to make use of skills and knowledge they have acquired and learned over the first two and a half years of their study in UTB and apply it in a real-world setting during their final semester (from January to June). The Capstone project requires students to carry out and to some extent lead a project for an external organisation. These projects essentially are catered to the immediate needs of organisations.

I am privileged to introduce the first edition of UTB School of Computing and Informatics' 'The Portfolio' for the 2024 Capstone Projects. While 'The Portfolio' has been published annually since 2017, this is the inaugural edition specifically focused on Capstone Projects. For this year's UTB Convocation, there are two editions of the magazine: one featuring the last Final Year Projects for four-year graduates and another highlighting the Capstone Projects of three-year graduates.

As you explore the pages of 'The Portfolio: An Insight to Creative Computing Capstone Projects 2024,' you will discover the diverse range of projects undertaken by the first graduating intake of the BSc. (Hons) in Creative Multimedia and BSc. (Hons) in Digital Media three-year cohorts. This edition presents 27 Capstone projects completed by our graduates, showcasing various types of products, including animated videos for awareness and interactive educational applications. These projects involved collaboration with a range of organizations from both the public and private sectors, reflecting the broad scope and impact of the work undertaken. We hope that you will enjoy and appreciate the effort each graduate has put forward towards the successful completion of their bachelor's degree and Capstone projects.

To the Creative Computing graduates of 2024, I hope your journey during these last three years have been invaluable to you as it is to us the academics and the many organisations that have supported you during the Capstone Project. I hope we have all played our part in guiding and inspiring you to success. I am sure your effort will inspire the next generation of Creative Computing students.

Pengiran Dr. Haji Azhan bin Pengiran Haji Ahmad

Programme Leader of Creative Computing



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## \*FOREWORD

## بِسَــِ اللهِ الرَّحْمِنِ الرَّحِيْمِ

Alhamdulillah, congrats to everyone on graduating! I am incredibly proud of each and every one of your achievements. I believe our succees is due in large part to the support we provided each other during tough times. Thank you for being such supportive friends and for sharing your knowledge and skills, helping us all improve along the way.



BSc. (Hons) in Creative Multimedia

The Portfolio 2024 marks the first edition dedicated to the Capstone Projects in Creative Computing. This year's edition stands out by offering graduates from the Creative Computing Programme Area within the School of Computing and Informatics (SCI) at Universiti Teknologi Brunei (UTB) an exciting opportunity to work on Capstone projects that feature collaborations with a diverse range of organizations and companies.

Through this experience, students have gained practical skills by working on real-world projects and collaborating with organizations. They've developed problem solving, teamwork, and communication abilities, explored career paths, and received valuable feedback. This portfolio highlights their successfully completed Capstone projects, showcasing their skills skills and talents.

Lastly, I would like to express my sincere thanks to all the lecturers and supervisors for making the Capstone projects a success. Your guidance and contributions were invaluable, and without your support, this achievement would not have been possible.





The Capstone Project introduces a new structure for the 3-year cohort, replacing the traditional Final Year Project used for the 4-year cohort. Combining elements of internships and final-year projects, it provides students with hands-on industry experience. Students tackle real-life challenges, collaborate with industry professionals, and deliver innovative solutions that bridge academic learning with practical application.

Unlike the Final Year Project, which often involved independent research, the Capstone Project emphasizes direct involvement, requiring students to work on real-world problems sourced from industry partners or projects proposed by lecturers in collaboration with organizations. This approach allows students to apply their knowledge in practical settings, achieve outcomes that benefit the organizations, and gain valuable experience, practical skills, and professional connections. Additionally, the Capstone Project addresses job challenges in Brunei by aligning academic learning with industry needs, enhancing students' employability, equipping them with essential skills, and opening doors to transformative opportunities, thus bridging the gap between education and the job market in a region with limited employment opportunities.

Stupah

Adiibah binti Haji Abdul Azim Azman

BSc. (Hons) in Digital Media

Ahr:

Nia Faziathul Sureya binti Haji Ghani

BSc. (Hons) in Creative Multimedia Tahnoh

Dayang Nur rahmah Binti Haji Awang Zulkifli

BSc. (Hons) in Creative Multimedia

July

Nur Zahirah binti Hj Rosli

Multimedia

BSc. (Hons) in Creative

Fatin Firzanah Binti Haji Rosli

BSc. (Hons) in Digital
Media

Much

Siti Nurmudzfirah Aqilah binti Hj Mohd Ibrahim

> BSc. (Hons) in Creative Multimedia

## PROJECT GALLERY

## CYBERSECURITY INTERACTIVE VIDEO: COMBAT CYBERBULLYING

Nia Faziathul Sureya binti Haji Ghani







#### ONLINE SCAM AWARENESS GAME : SPOT THE SCAM

Adiibah binti Haji Abdul Azim Azman

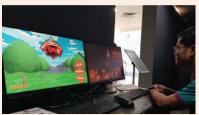






#### **40 YEARS OF BRUNEI: AN INTERACTIVE EXPLORATION**

Wani Aida binti Mahni/Azizan







### TRUST EQUATION

Aniq Haziq bin Ahmad Irawadi







### NUI - PERSON IN CHARGE (NUI - PIC)

Muhammad Syazwan bin Haji Metussin

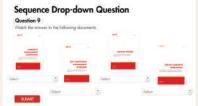


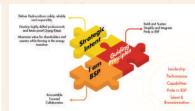


### **COMPETENCE MANAGEMENT IN BSP**

Siti Khairunnisa 'Aqilah binti Azahari







## CROCODILE AWARENESS ANIMATION & PANGOLIN STORYBOOK

Ahmad Afham Syahmi bin Haji Ghazali







## INTERACTIVE KIOSK APPLICATION DEVELOPMENT FOR WILDLIFE AWARENESS

Muhammad Aiman Bazli bin Haji Jasni







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## INTO THE WILD A FOREST ADVENTURE E-BOOK AND 2D ANIMATION

Abdul Hadi Bin Shukor





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### **DIGITISING CURRICULUM BOOK: ROAD SAFETY**

Muhammad Fadillah bin Haji Suhaili & Sheikh Mohammad Zahid bin Sheikh Noordin







## GAME-BASED LEARNING: DEVELOPING AN EDUCATIONAL GAME FOR STUDENTS WITH AI SUPPORT

Mohammad Ali Taufan Sembara @ Muhammad Ali Safwan bin Yussof







## "MIX IT!" : A 2D **GAME** ABOUT SOUND DESIGN WITH A FOCUS ON SOUND MIXING

Rowena binti A. Hamid







## SONIFY: YOUR INTERACTIVE GUIDE TO SOUND DESIGN

Dayang Nur Rahmah binti Awang Haji Zulkifli







### **ROAD SAFETY AWARENESS**

Ak Amir Reduan Bin Pg Haslan

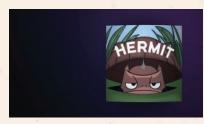


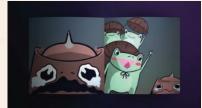




#### 3D ANIMATION SHORT FILM

Muhammad Nur Syazwi bin Zaini



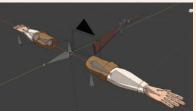




#### **AR SHOOTING GAME**

Muhammad Aulya Syamil & Aiman Sahl Bin Rosman







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#### ARENA AKADEMIA

Nur Zahirah binti Haji Rosli, Muhammad Aiman @ Mahadi bin Aidee Suherman & Norhazirah Syazwana Binti Suwardi







## PSA: BENEFITS OF GETTING QUALITY SLEEP & KINDNESS

Muhammad Aiman bin Awang Amir







## PSA: EMBRACING QUALITY TIME WITH FAMILY & RECIPE FOR SUCCESS

Aida Farida Binti Adri Syahme

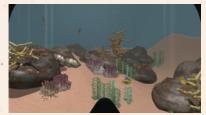






#### **AR DIVING**

Fatin Firzanah Haji Rosli



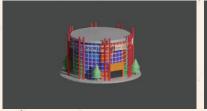




## ENHANCING BRAND IMPACT THROUGH INSTAGRAM ANIMATED STICKERS & AUGMENTED REALITY

Ak Md Adli Mahran bin Pg Hj Md Yusra



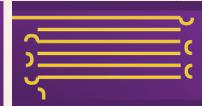


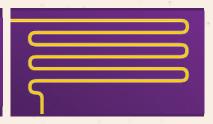


## PIPE ROUTING INTERACTIVE GAME EXHIBIT

Airul Narsrul bin Abdul Nasir







## PROMOTIONAL VIDEO OF UTB FOR STUDENT ENROLLMENT

Muhammad Nur Arif Izzuddin bin Roslan

















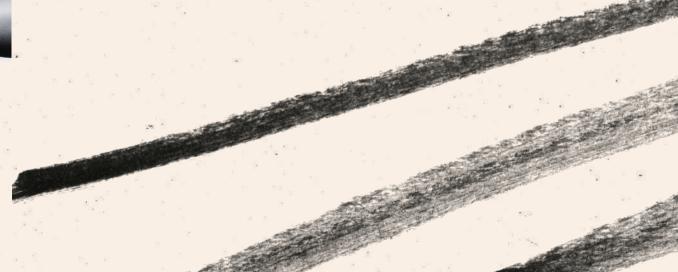


## BRUCERT

Cyber Security Interactive Video: Combat Cyberbullying

Online Scam Awareness Game: Spot The Scam







#### NIA FAZIATHUL SUREYA HJ GHANI

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passionate artist with a deep love for arts and design, and a strong aspiration to be involved in the film industry. My creative journey is driven by a constant desire to learn and explore new ideas, with a particular keen interest in video filming and graphic design. Whether it's sketching, painting, or working on film projects, I find joy in experimenting with different mediums and techniques. I believe that creativity knows no bounds and that every project is an opportunity for growth. My goal is to continuously push the boundaries of my imagination and connect with others who share a similar enthusiasm for the artistic process.

## CYBER SECURITY INTERACTIVE VIDEO: COMBAT CYBERBULLYING

## **Project**

## **Synopsis**

The interactive video aims to raise awareness of cyberbullying, empowering children to identify, report, and avoid it. It promotes a safer, more inclusive online world by fostering empathy and responsible online behaviour. Aims to empower children to safely navigate digital spaces and address online bullying's harmful effects by creatively engaging them with evidence-based strategies from education, cybersecurity, and child psychology.

Reflection

This project helped me improve my skills in analytical thinking, strategic planning, and designing with the user in mind. I also gained a deeper understanding of how challenging it is to create a story and add interactive elements. The process required a lot of focus and careful attention to detail. As I worked through the different stages, I learned more about storytelling, engaging users, and the technical skills needed to bring everything together. This experience helped me grow and made this project an important milestone in my creative design career.

## Cyber Security Interactive Video COMBAT CYBERBULLYING

### Project Overview

The "Combat Cyberbullying" interactive video aims to raise awareness of cyberbullying, empowering children to identify, report, and avoid it. It promotes a safer, more inclusive online world by fostering empathy and responsible online behaviour.

#### **Problem Statement**

Children are vulnerable to cyberbullying due to the rise of social media, which facilitates intimidation, harassment, and exclusion. This issue threatens their mental and emotional health, underscoring the need for comprehensive interventions, educational programs, and technological solutions to create a safer online environment.

#### Aim & Objective

The video aims to empower children to safely navigate digital spaces and address online bullying's harmful effects by creatively engaging them with evidence-based strategies from education, cybersecurity, and child psychology. The video teaches children essential internet skills, resilience against cyberbullying, and promotes online inclusivity and respect.

## **Proposed Solution**

The interactive video features engaging stories and scenarios that reflect real-life cyberbullying, letting children make choices and see their outcomes. Allows children to input their own choices and witness the personalized outcomes of their decisions.

# VGLY! FATI

## Target Audience

Pre-Teens (9-12 years old)

Early-Teens (13-15 years old)

Mid-Late Teens (16 – 18 years old)

#### Result

Most respondents find that using interactive video animation is an innovative way to raise awareness and capture their attention.

#### Tools Used













IN COLLABORATION WITH: BRUCERT



## ADIIBAH BINTI HAJI ABDUL AZIM AZMAN

BSc. (Hons) in Digital Media

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i there! My name is Adiibah. I am a passionate game developer and graphic designer. I began my journey as a science stream student but soon discovered my love for graphic design and gaming. I was inspired by the games I played and the designs I admired, which led me to pursue creating my own games and designs that are just as captivating.

## **ONLINE SCAM AWARENESS** GAME: SPOT THE SCAM

## **Project**

## **Synopsis**

Spot the Scam is a 2D, point-and-click educational simulation game designed to educate the people in Brunei Darussalam on recognizing and avoiding online scams. This capstone project aims to raise awareness of online scams and the importance of taking measures to ensure one's own safety online.

Through this project, I learned a lot more about game development, particularly when designing a product for a company. I now have a better understanding of how to create a user-friendly game and combine educational content with gameplay. My problem-solving skills and ability to adapt to new requirements and feedback have also improved thanks to this project.

# **Online Scam Awareness Game** Spot The Scam

educational simulation game designed to educate the people in Brunei Darussalam 'Spot The Scam' is a 2D, point-and-click recognizing and avoiding online scams.

## Objective

information from an unsuspecting individua

involve stealing money

messages, fake websit

including phishing

An online scam is a fraud conducted online

Introduction

Create awareness materials that the public can easily understand and

> engineering tactics to trick, influence, in common which is the use of social

These types of online

victims. (Belcic, 2024)

**Farget Audience** 

General Public

proactively taking safety measure Educate the public about cyber threats, best practices for online safety, and the importance of

habits thus protecting themselves from Drive behavioural change, influen the public to practice safer online

and the importance of taking measu to ensure one's own safety online. **Fools Used** 

To raise awareness of online scams



Unity







Visual Studio Code





## Game Features

Point and click gameplay.

Scenario basis.





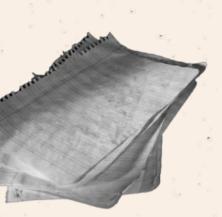












## BRUNEI NATIONAL ARCHIVE



40 Years of Brunei: An Interactive Exploration







#### WANI AIDA BINTI MAHNI/AZIZAN

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reative Multimedia and Graphic Designer adept at taking on challenges and working independently. Eager to contribute my skills in innovative and collaborative projects to drive success and growth.

## **40 YEARS OF BRUNEI: AN** INTERACTIVE EXPLORATION

## **Project**

## **Synopsis**

The Brunei Darussalam National Archives launched "40 Years of Brunei: An Interactive Exploration" to honor the nation's journey since independence in 1984. This web-based application uses cutting-edge multimedia technology, including VR, AR, timelapse videos, 3D holograms, interview reels and interactive games, to create an engaging and educational platform. The project aims to preserve Brunei's cultural and historical heritage, making it accessible and appealing to modern, tech-savvy audiences. By digitizing and animating historical documents and artifacts, the exhibition offers a dynamic and immersive experience, reaching a global audience and enhancing the understanding of Brunei's development.

This aspect of this project highlighted the importance of adaptability and the ability to work effectively under tight deadlines, problem solving, and project management. While working alone provided autonomy, it also highlighted the need for effective communication and collaboration with stakeholders, including archivists. Ensuring that the exhibition met the expectations and requirements of its audience required a keen understanding of user needs and preferences. Continuous learning remained a consistent theme, with the solo designer acquiring new skills and knowledge throughout the project.





40 Years of Brunei: An Interactive Exploration Exhibition aims to highlight the changes and development Brunei Darussalam has experienced over the past 40 years through the integration of interactive media.

The exhibition focuses on the social aspects of these changes and their impact on the new generation, particularly those who have lived through the post-independence era.

Featuring collections of historical materials of pre- and post-independence from the Brunei Darussalam National Archives, the interactive multimedia application makes use of cutting-edge technology like AR, timelapse video 3D holograms, interactive games, interview reels, VR and web-based applications.



PROJECT OVERVIEW

#### PROBLEM STATEMENT

The current arrangement and presentation of content does not pique the interest draw in a diverse range of visitors, particularly the younger demographic

#### TARGET AUDIENCE

The public Aged 15 and above

#### A comprehensive web-based application, "40 Years of Brunei: An Interactive Exploration," was created to honour and document the nation's rich history and cultural legacy throughout the

course of the past four decades.

#### AIM, OBJECTIVES

To create an engaging and comprehensive digital repository that celebrates the nation's history and by making historical information cultural achievements over the last four decades

To utilise cutting-edge technology to offer innovative ways of interacting with archival content, thus transforming the traditional static exhibition into a dynamic educational tool.

#### To enhance public awareness and appreciation of Brunei's heritage more accessible and appealing

Developing the interactive multimedia web-based application with AR, VR, timelapse video, 3D holograms, interview reels interactive game

SOLUTIONS

#### METHODOLOGIES

Waterfall Method (Analysis, Design, Development, Evaluation/Testing phase and Implementation.) + 3 major phases of video production (Pre-production, Production,

Post-production)

Enhances the user experience making Brunei's history and cultural heritage accessible and engaging for a diverse audience.

### RESULTS

Most respondents find that using interactive multimedia web-based application is an innovative way to create awareness and appreciation of Brunei's heritage.

Wani Aida binti Mahni/Azizan B20210032 BSC. (Hons) in Creative Multimedi







## BRUNEI SHELL PETROLEUM



## PROJECTS

1 — Competence Management in BSP

2 — Hydrogen Sulphide (H<sub>2</sub>S) Awareness

Mentoring Awareness

4 — NUI - Person in Charge (NUI - PIC)

**5** — Trust Equation



## SITI KHAIRUNNISA 'AOILAH **BINTI AZAHARI**

## BSc. (Hons) in Creative Multimedia

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designer specializing in content creation, with a sharp eye for detail to ensure every element of a project is thoughtfully crafted and perfectly executed.

## COMPETENCE MANAGEMENT IN BSP

## **Project**

## **Synopsis**

The development of an e-learning course utilizing existing documentation on Competence from Brunei Shell Petroleum aims to support effective learning, drive continuous improvement, and foster a culture of ongoing development. This initiative is designed to help the organization achieve its business objectives and enhance overall success.

This project significantly enhanced my skills in problem-solving, project stakeholder management, communication, and user-centered design.

## **(2)**

retroleum's competence ence Management in BSP. E Management Standard, 1-time employee dedicat orect's goals are to en



Brunei

TARGET AUDIENCE



attowing employees to access the and at their own pace.

engaging with

making it more

TOOLS



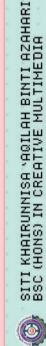














### SITI NURMUDZFIRAH AQILAH BINTI HJ MOHD IBRAHIM

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graphic designer, animator, and photographer who loves bringing creativity to life. I thrive on learning new skills and adapting to new challenges. When I'm not crafting visuals, you'll find me diving into the latest video games or cheering on my favorite Formula 1 drivers. My passion for design and storytelling fuels my work, making every project an exciting adventure.

## HYDROGEN SULPHIDE (H2S) AWARENESS TRAINING

## **Project**

## **Synopsis**

The new edition of the H2S Awareness e-learning course transforms basic facts into an exciting experience! Featuring dynamic simulations, interactive exercises, and captivating multimedia content, it presents engaging scenarios that make learning about H2S safety both enjoyable and memorable. This upgraded course enhances knowledge retention while keeping learners entertained from start to finish. Get ready to master H2S safety with this adventure-packed e-learning journey!

al m en th co

This project enhanced my skills in e-learning development, instructional design, project management, and multimedia integration. It strengthened my problem-solving and critical thinking abilities, which are vital for creating engaging training solutions. Collaborating with Brunei Shell Petroleum honed my teamwork and adaptability, preparing me for future innovative challenges in educational technology.









## HYDROGEN SULPHIDE (H2S) AWARENESS TRAINING

#### PROJECT OVERVIEW

Enhancing the earlier version of H2S Awareness e-learning course. While the old version provided fundamental information on H2S gas and safety, it lacked interactive elements and engagement features.

The course will be integrating simulations, scenario-based exercises, and multimedia content to enhance knowledge retention and learner engagement.

#### AIM & OBJECTIVES

The aims is increase awareness about the dangers of hydrogen sulfide (H2S) exposure and ensure individuals are prepared to detect and handle H2S leaks in prone areas.

Objectives include creating an interractive interface, providing comprehensive H2S knowledge, educating on health risks, training in safety measures and emergency responses, and fostering a safety-conscious culture.

#### TARGET AUDIENCE

The target audience for this project includes BSP employees, contractors, and third-party personnel working in high-risk H2S areas, such as onshore and offshore facilities. Effective H2S training is essential to ensure safety and reduce the risk of H2S-related incidents.



#### PROBLEM STATEMENT

Brunei Shell Petroleum (BSP) struggles with H2S Awareness Training due to limited facilitator availability and time-consuming traditional methods, leading to scheduling difficulties and inefficient use of resources. Administrative tasks further delay training. Transitioning to e-learning offers immediate access to training materials, reducing delays and improving efficiency with flexible, engaging learning accessible anytime.

#### **METHODOLOGY**

The creation of BSP's H2S Awareness e-learning course integrates the Waterfall Model, Technology Acceptance Model (TAM), and Nielsen's Usability Heuristics. This approach ensures effective design, implementation, and evaluation, enhancing accessibility, engagement, and learning outcomes.

#### RESULTS



Participants found the content much more engaging compared to traditional classroom



Participants reported always being able to apply the knowledge gained from the course in their workplace or daily activities, indicating practica utility and relevance.



Interactive quizzes were highlighted as highly effective in testing knowledge and comprehension

Siti Nurmudzfirah Aqilah binti Hj Mohd Ibrah

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### AK MUHD HAFIZUDDIN BIN PG HJ OMAR ALLI

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am a passionate graphic designer with a flair for 2D and motion graphic animation, skilled in creating visually compelling content that captivates and engages audiences. Proficient in design software and animation techniques, I bring creativity and precision to every project. I am dedicated to continuous learning and staying updated with the latest industry trends to deliver high-quality, innovative designs.

## **MENTORING AWARENESS**

## **Project**

## **Synopsis**

BSP currently has a limited mentoring program, making it challenging for employees to find suitable mentors. To address this, my capstone project proposes creating an accessible animation video for all employees. The video will provide a comprehensive overview of mentoring, highlight the benefits of having a mentor, clarify the differences between a mentor and a coach, and outline the steps to find a mentor within BSP. By presenting this information in an engaging format, the video aims to simplify the mentorship process and support employees' professional development and career growth.

problem-solving abilities. Handling numerous demands and solving problems instantly as an individual contributor, I improved my time management and learned to adapt quickly to new challenges. These skills are essential for my future career in animation and design.

This project significantly enhanced

my animation skills and boosted my

Ak Muhd Hafizuddin bin Pa Hj Omar Alli | B20210180 | BSc in Creative Multimedia

## **Transforming Mentoring Knowedlge** Into E-Learning: Raising Awarness **Through Animation**





## **Project Overview**

This project leverages the timeless art of storytelling through motion graphic animation to create an instructional video centered on the concept of mentoring within the workplace, specifically for Brunei Shell Petroleum (BSP). This video is intended to be showcased during the People Development series on May 15th, potentially featured on the BSP website, and presented at an event hosted by the Head of Development & Learning (HDL) department.

### The Objectives

## Target Audience for this project is

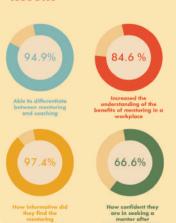








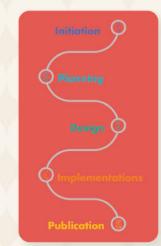








## Methodology The Waterfall Method







### MUHAMMAD SYAZWAN BIN HAJI METUSSIN

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o potowander

reative and detail-oriented graphic designer with a passion for transforming ideas into visually compelling designs. With a strong foundation in both print and digital media, I bring a unique blend of artistic flair and technical expertise to every project. My goal is to not just meet but consistently exceed client expectations by delivering innovative and aesthetically pleasing solutions.

## NUI - PERSON I<mark>N CHARG</mark>E (NUI - PIC)

## **Project**

## **Synopsis**

Transforming traditional delivery courses into an e-learning format and publishing them on the e-learning portal, this project aims to create a comprehensive and engaging online learning platform for users.

Reflection

Experiencing real-life engagements with clients has further enhanced my capabilities in both speaking and problem-solving, allowing me to effectively address and resolve issues as they arise.

## E-LEARNING FOR NORMALLY UNMANNED INSTALLATION-PERSON IN CHARGE (NUI-PIC)

#### **PROJECT OVERVIEW**

Transform traditional delivery courses into e-learning format and publish them on the e-learning portal. This project aims to create a comprehensive and engaging online learning platform for users.

#### **PROBLEM DEFINITION**

The NUI-PIC course, traditionally delivered with PowerPoint slides and video presentations, faces the challenge of integrating e-learning into its framework. The goal is to ensure accessibility, engagement, and effectiveness while fostering adaptability and innovation within the organization.

#### **AIMS AND OBJECTIVES**

Enhance workforce engagement and etention through effective e-learning hat aligns with assistive technologies, universal design, and organizational goals. The course reduces costs, mproves efficiency, ensures accessibility, and supports self-paced earning, fostering continuous levelonment

#### **TARGET AUDIENCE**

This online course provides a robust educational foundation for both novices and experts, crucial for the secure and efficient operation of autonomously managed installations.

## METHODOLOGY

- ADDIE Model
- TAM Model
- Nlelsen's Usabillity Compnents

#### TOOLS















#### RESULTS

How would you rate the overall quality of the e-learning format for this course?

67% EXCELLENT

33% GOO







### ANIQ HAZIQ BIN AHMAD IRAWADI

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y background in both creative and corporate environments has provided me with a well-rounded perspective, allowing me to approach projects with a balance of innovation and practicality. I am passionate about leveraging my skills to create impactful visual experiences and user-friendly designs that meet the needs of clients and users alike.

## TRUST **EQUATION**

## **Project**

## **Synopsis**

The online interactive course aims to equip employees with the knowledge and skills essential for their work performance and career development. It will also enable employees to engage meaningfully and enjoyably with the content, the instructor, and their peers. By following Nielsen's Usability Goals, the course will use various methods and tools to create an interactive and immersive learning environment, such as drag-and-drop interactions, quizzes, simulated scenarios, and social learning.

The capstone project, combined with the internship, has significantly boosted my confidence and knowledge of working in a corporate environment. This experience will be valuable if I choose to work on projects in sectors such as banking, asset management, and other corporate fields. Although it hasn't contributed much to my art knowledge, it has greatly enhanced my communication skills, particularly in dealing with stakeholders, SMEs, and clients. Additionally, I have gained a deeper understanding of user-centered design by observing client and consumer interactions regarding the usability and functionality of digital interfaces.

## INTERACTIVE E-LEARNING COURSE UNDER LEADERSHIP AND FUNCTIONAL LEARNING 'TRUST EQUATION'

HDL-6 LEADERSHIP AND FUNCTIONAL LEARNING BSP / BAPSLH





### **OVERVIEW**

My project will be creating e-learning courses titled "Trust Equation" and which will be produced under HDL-6.

The online interactive course aims to provide employees with relevant knowledge and essential skills for their work performance and leadership development.

The courses will also enable the employees to engage with the content in a meaningful and enjoyable way.

#### **OBJECTIVE**

Engagement Objective: Develop interactive engaging presentations to actively involve and entertain the audience

<u>Learning Approach</u>: Enhance the understanding of the corporate culture and improve leadership skills in the company, which is a significant aspect of today's ever-changing society's working ethics

#### AIM

Enhance the e-learning's features with

- · Engaging interactivity
- Animations to broaden BSP employee attentiveness
- Using Quiz system and Scenarios to provide retention and awareness during the learning phase

### **TARGET AUDIENCE**

Including <u>individuals up to 60 years old</u> ensures that adults' ongoing learning and leadership are acknowledged. The <u>exclusivity</u> ensures that the content or communication is relevant only to those <u>who have access to such confidential</u> information.

## **METHODOLOGY**











## **RESULTS**

82% 88%

Course satisfaction

Course engagemen

Participants has concluded their feedbacks on course satisfaction and course engagements









## DEPARTMENT OF FORESTRY



## PROJECTS

Crocodile Awarness Animation & Wildife Trafficking Storybook

Interactive Kiosk Application
Development For Wildlife Awareness

Into The Wild A Forest Adventure E-Book & 2d Animation







### AHMAD AFHAM SYAHMI BIN HAJI GHAZALI

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afhamq

am a hardworking individual with extraordinary talents by making dream comes true when it comes to capturing moments with my camera. Being positive with a sense of humor is the most important trait I have when adapting to changes and lets you think outside of the creativity box. This is the first step in starting my own creative business in the future.

## **CROCODILE AWARENESS** ANIMATION & WILDLIFE TRAFFICKING STORYBOOK

## **Project**

## **Synopsis**

"Crocodile Awareness Animation":

A 2D animation video explaining about the dangers of crocodile, the impact it has on the ecosystem and the safety measures when meeting with a crocodile.

"Pangolin Storybook":

Communicating the importance preventing pangolin poaching and habitat destruction through storybook, narratives, artwork and educational components.

such as touching crocodiles in real life, solving real life problems faced in the organization, went to unexplored places in Temburong, learned how the organization give talks for raising crocodile awareness, went inside Sultan's Palace for the first time, created an opening video for MYCE Expedition in Batu Apoi, my crocodile awareness video being played during the MYCE Conference, joined the National Day celebrations at the stadium, and others. I am appreciative of my supervisors and coworkers' advice and assistance. which have been crucial to my development throughout

capstone project.

I have been exposed so several things

this

## **Project Overview** Aim Introduction **Objectives** Tools used Process Crocodile **Target Audience** Awareness Animation Results Infographic Poster **Project Overview** Introduction Aim are endangered in their daily life and **Objectives** Tools used **Process Target Audience Trafficking** Storvbook Results Silent Suffering: The Plight of Pangolin Positive feedback & the message was understood d Afham Syahmi bin Haji Ghazali B20210222 (Creative Multimedia)



## MUHAMMAD AIMAN BAZLI BIN HAJI JASNI

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ersatile and persistent developer who is always looking for the most efficient way to complete a task.

## INTERACTIVE KIOSK APPLICATION DEVELOPMENT FOR WILDLIFE AWARENESS

## **Project**

## **Synopsis**

Development of an interactive kiosk application for the Wildlife Division of the Forestry Department to help spread wildlife awareness to the general public.

na sit of the total the to

This project taught me on how to navigate through almost impossible situations during development, primarily optimizing the application to work on very limited kiosk machine that I was provided with. It greatly improved my Android app development capabilities and my approach to designing user interfaces.



## **CAPSTONE PROJECT**



## INTERACTIVE KIOSK APPLICATION DEVELOPMENT FOR WILDLIFE AWARENESS

#### INTRODUCTION

The Wildlife Division wants to spread more awareness on Brunei's Wildlife through multimedia means. The development of this kiosk application is part of the contribution towards that effort

#### **AIMS AND OBJECTIVES**

- Utilise the unused kiosk machine owned by the Wildlife Division
- Contribute to the digitisation of their operations
- Contribute to their efforts in spreading wildlife awareness

#### **BACKGROUND STUDY**

- Wildlife Awareness in the general public is important to maintain a healthy wildlife ecosystem, and reduce problems that may occur that may even pose a risk to human lives
- Therefore, educating the public on the importance, dangers, and the ways to reduce unnecessary risk that come from our local wildlife is very crucial to preserve the local wildlife ecosystem. (Passoni et al., 2023)

#### DEVELOPMENT OF THE APP

- The content for the kiosk is mostly provided by the Wildlife Division
- · Some content are from my own research
- The Kiosk application will be an Android Application, since the operating system of the Kiosk itself is running Android
- The app is written in HTML, CSS, and Javascript using Bootstrap Studio
- The resulting webpages from Bootstrap Studio will be processed into an Android APK using Apache Cordova
- The Android APK is then installed on the kiosk machine to use

#### PROJECT OUTCOME

- The kiosk app is completed, and now can contribute to the digitisation of their operations
- · Contribute to their efforts in spreading wildlife awareness
- The kiosk is now in use, and placed outside of the wildlife division office

## TOOLS









MUHAMMAD AIMAN BAZLI BIN HAJI JASNI B20210392



## **ABDUL HADI BIN SHUKOR**

BSc. (Hons) in Creative Multimedia

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have a strong passion for graphic design and love creating visuals that tell stories and evoke emotions. I enjoy using tools like Adobe Creative Suite and experimenting with different styles. I'm dedicated to learning and improving my skills to become a skilled graphic designer who brings creative ideas to life.

## INTO THE WILD A FOREST ADVENTURE E-BOOK & 2D ANIMATION

## **Project**

## **Synopsis**

The project is to raise awareness about the rich biodiversity of Brunei Darussalam by producing an e-book and creating 2D educational animations using the Artivive App. The e-book will feature detailed information and images of Brunei's ecosystems, while animations accessible via the Artivive app will make learning interactive and engaging.

In conclusion, my Capstone Project at Tropical Biodiversity Brunei focused on conservation and education. By using modern technology and interactive tools, I've helped build a foundation for protecting the environment and engaging the community. These efforts will continue to inspire and educate strengthening people, connection to Brunei's biodiversity and helping to preserve it.







## MINISTRY OF EDUCATION



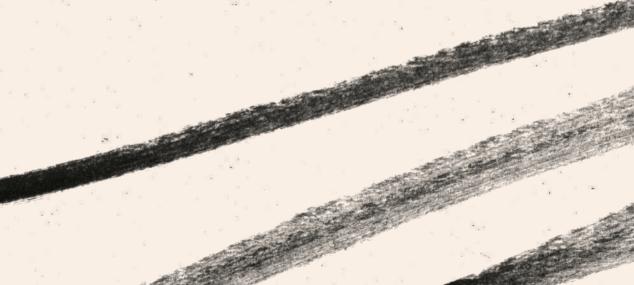


## PROJECTS

1 — Digitising Curriculum Book: Road Safety

Game-based Learning: Developing an Educational Adventure Game For Students With AI Support

Immersive Learning Through AR: Enhancing Education Through Augmented Reality Flashcards





## MUHAMMAD FADILLAH BIN **HAJI SUHAILI**

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ultimedia designer with experience in graphic design, 3D modeling, and video production, capable of creating digital content across various platforms.

## DIGITISING CURRICULUM BOOK : **ROAD SAFETY**

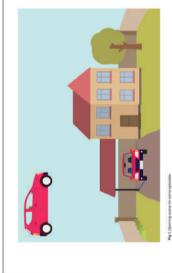
## **Project**

## **Synopsis**

This project focuses on digitizing and enhancing a traditional road safety curriculum book by converting it into engaging animations. The goal is to modernize road safety concepts and make them more engaging and useful for elementary school students. Our team collaborated to create visually appealing and cohesive animations, including background design, storyboard development, and obtaining stakeholder approval.

This project improved my ability to work in a team environment and provided insight into real-life working conditions.

**Problem Statement** 





































## SHEIKH MOHAMMAD ZAHID **BIN SHEIKH NOORDIN**

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specialize in videography with a strong focus on storytelling and excel in design, particularly when given the freedom to explore and create without boundaries.

## DIGITISING CURRICULUM BOOK : **ROAD SAFETY**

## **Project**

## **Synopsis**

"Digitising Curriculum Book: Road Safety" aims to convert six road safety books from the Ministry of Education into animated content for primary school children. Its goal is to educate young children in Brunei Darussalam about road safety.

Working "Digitising Curriculum Book: Road Safety" project enhanced my teamwork capabilities, time management, and communication skills.



## DIGITISING CURRICULUM BOOK ROAD SAFETY

## **PROBLEM** STATEMENT

## **OBJECTIVES**

The objective of this study is to examine how effective animated digital tools are in improving road safety education for children, addressing the shortcomings of traditional methods and leveraging innovative approaches.

## TARGET AUDIENCE

Primary school children.

## **METHODOLOGY**

### PRODUCTION PROCESS

1 Storyboard & Scriptwriting

3 Audio Recording & Editing

Phase 2 Animation: Polishing 6

Phase 1 Animation: Placement & Movement

Lip Sync Animation 4

Compiling 7

### **PROJECT ROLES**

Audio Editor Removing background noise, balancing volume levels, and applying effects to achieve desired voice.

Animation

Refining the animation to meet desired standards and effectively communicate the intended message.

#### Lip Sync Animation

Matching a character's mouth movements with spoken dialogue.

#### Compiling

Final stage of the animation process where all individual scenes are assembled into a complete video.







## CONCLUSION

This project used 2D animations to improve road safety education for children. The innovative approach and teamwork provided a strong foundation for future

improvements. Ongoing research and development can continue to enhance road safety education for children.





### MOHAMMAD ALI TAUFAN SEMBARA @ MUHAMMAD ALI SAFWAN BIN YUSSOF

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Graphic Designer with a passion for Photography and Game Development.

## GAME-BASED LEARNING: DEVELOPING AN EDUCATIONAL GAME FOR STUDENTS WITH AI SUPPORT

## **Project**

## **Synopsis**

This project involves the development of an interactive educational game designed for primary school students with Artificial Intelligence (AI) support. It features interactivity, exploration, and an engaging storyline to enhance student engagement, primarily in science subjects. The development of this game is part of a blended learning approach, combining traditional methods with interactive digital tools to create a more dynamic learning experience.

Reflection

This project enhances my skills and understanding in creative design and project management. I utilised the use of AI to aid in asset creation to improve efficiency in game development especially for the individual developers to focus in the programming phase. The experience also improved my technical skills in 2D game development, from pre-planning to the development process. I am confident these acquired skills will prepare me for my future career.

Game-Based Learning: Developing an Educational game for students with AI support.



## Overview

The use of Blended Learning has become more prevalent and is now being utilised in schools to fit with the current technological advancements. One example approach is Gamification. This project focuses in developing an educational adventure game with Artificial Intelligence (AI) support.

## **Problem Statement**

Traditional way of teaching is less interactive and engaging. Most educational games available uses quiz-like format.

## **Target Audience**

Primary Students from Year 1-3.

## Aims

To create a 2D educational adventure game to increase engagement.

## **Objectives**

Design and develop a game with captivating storyline and characters.

#### Tools









#### **Game Features**

- · Interact with NPCs.
- · Dialogue System.
- Inventory System.
- Exploration.









ew screenshots

Muhammad Ali Safwan Bin Yussof B20210188 BSc in Creative Multimedia



*53* 





## MUHAMMAD AQIL HILMI BIN MOHAMMAMAD MAZLAN

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nsightful and compassionate AR developer with a strong foundation in video game designing

## IMMERSIVE LEARNING THROUGH AR: ENHANCING EDUCATION WITH AUGMENTED REALITY FLASHCARDS

## **Project**

## **Synopsis**

An Augmented Reality (AR) application to enhance education by utilizing the resources available and turning them into AR flashcards. Usability testing shows that the AR application created makes studying enjoyable by immersing users in the experience through 3D models and interactive quizzes.

Reflection

ability to generate innovative ideas and solve problems effectively, while managing the project with a timely and efficient approach. These skills are crucial for my future endeavors in the creative design industry.

This project has broadened my



## IMMERSIVE LEARNING THROUGH AR: ENHANCING EDUCATION WITH AUGMENTED REALITY FLASHCARDS

#### **PROJECT OVERVIEW**

An Augmented Reality (AR) application to enhance education by utilizing the resources available and turning them into AR flashcards. Usability testing shows that the AR application created allows studying to be enjoyable due to the immersion of users to study by studying the 3D models and quiz in the AR experience.

#### PROJECT OBJECTIVE

Create an immersive AR application for pilot testing by utilizing interactive form of education. Encouraging both educators and students be immersed in the subject.

#### **TARGET AUDIENCE**

- Children
- Educators

#### **SOFTWARE TOOLS**









#### CONCLUSION

The AR immersive prototype is able to enhance education due to the

incorporation of immersive functions added to the AR experience.

MUHAMMAD AQIL HILMI BIN MOHAMAD MAZLAN B20210292 BSC (HONS) IN DIGITAL MEDIA

#### **PROBLEM STATEMENT**

Education nowadays has evolved into ways that can help people on varying levels. Thus, instating the use of blended learning compared to traditional learning. The effectiveness of immersive AR education has evidence stating how beneficial it is for students as it creates a fun form of learning and makes a longer lasting impression for the students.







## MULTIMEDIA UNIVERSITY

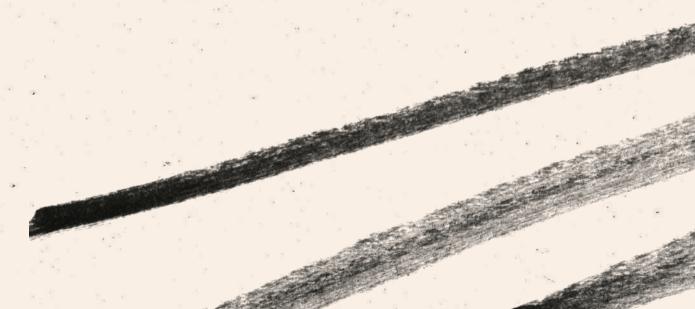




## PROJECTS

"Mix It!" : A 2D Game About Sound Design With A Focus On Sound Mixing

**2** — Sonify : Your Interactive Guide to Sound Design





#### **ROWENA BINTI A. HAMID**

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Digital artist and aspiring game developer.

## "MIX IT!": A 2D GAME ABOUT SOUND DESIGN WITH A FOCUS ON SOUND MIXING

## **Project**

## **Synopsis**

Mix It! is a prototype of a game designed to simulate a basic sound mixing environment for users who are new to sound mixing. Its primary goal is to explore the instructional potential of educational games for beginners in the field of sound design.

erlection

Over the course of the project, I improved my problem-solving and critical thinking skills, and learned a lot about game development in the process.





### DAYANG NUR RAHMAH BINTI HAJI AWANG ZULKIFLI

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am a visual storyteller, crafting narratives through pixels. A dedicated graphic designer and digital illustrator, I thrive on exploring the boundless realm of visual expression. With a keen eye for detail and a love for experimentation, I seamlessly blend diverse elements like textures, illustrations, typography, and colour palettes to craft impactful, aesthetically pleasing designs. I'm a dedicated advocate for staying ahead of the curve, leveraging AI tools to fuel my creative process and generate innovative ideas. Embracing a growth mindset, I am eager to take on new challenges, learn from every experience, and contribute meaningfully to a dynamic team.

## **SONIFY: YOUR INTERACTIVE GUIDE TO SOUND DESIGN**

## **Project**

## **Synopsis**

Sonify is an interactive mobile app prototype designed to introduce MMU students to the fundamentals of sound design. This immersive digital eBook offers a rich multimedia experience, incorporating activities and quizzes to reinforce learning. Focusing on the five core audio principles (frequency, wavelength, decibels, place theory and psychoacoustics), it provides a hands-on approach for beginners. Accessible through the Figma mobile app, Sonify aims to engage users and foster active learning in sound design.

My Capstone Project at MMU was a challenging yet rewarding endeavor. Through effective collaboration with MMU educators and the strategic use of AI tools, I successfully developed a user-centered mobile app prototype. This experience honed my ability to manage tight deadlines, iterate designs, and harness the potential of interactive multimedia for educational purposes. I am eager to apply these skills to create innovative learning solutions.



#### **Features**







#### Problem Statement

Multimedia University (MMU) sound design students lack interactive resource for foundational principles of sound design, hindering engagement and ac ning experience. Current learning materials rely on static formats, whi ess engaging for students

Solution: To develop an interactive mobile app prototype that utilises engaging multimedia elements. This will empower students to grasp these foundational concepts and build a stronger foundation for their sound design

## **Project Overview**

Sonify is a mobile app prototype designed to equip MMU students with a foundational understanding of sound design principles. This interactive eBook is ideal for beginners, offering exploration of the 5 core audio fundamentals: frequency, wavelength, decibels, place theory, and psychoacoustics. It offers a variety of multimedia elements to engage users and enhance active learning. Sonify's prototype can be accessed using the Figma mobile app for an immersive mobile app experience.

## **Project Objectives**

The project proposes a solution with four key objectives:

To investigate Gagne's "Stimulate Recall of Prior Learning" event to knowledge and connect it To integrate engaging

knowledge retention

such as quiz

activities that enhance

To design and develop an interactive eBook that introduces students to key concepts and terminology in sound design

gather user feedback and refine the user experience and learning effectiveness

## Methodology

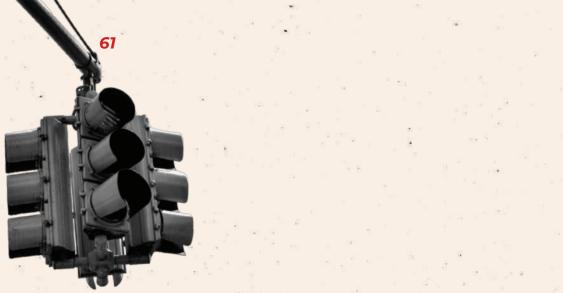
Sonify utilises the ADDIE model, an instructional design framework consisting of five phases with an emphasis on evaluation throughout the process. This ensures a structured learning experience for MMU students:



## Limitations & Challenges and Future Work

Time constraints necessitated a focus on core functionalities in Sonify's initial prototype, limiting exploration of advanced design elements. Evaluation and small scale prototype testing ensured user-centricity but extended the development cycle. Consequently, the prototype was narrowed down to focus on 3 chapters with 2 activities and quizzes only

Future iterations aim to incorporate the remaining 2 chapters and its activities followed by user testing with the target MMU student audience



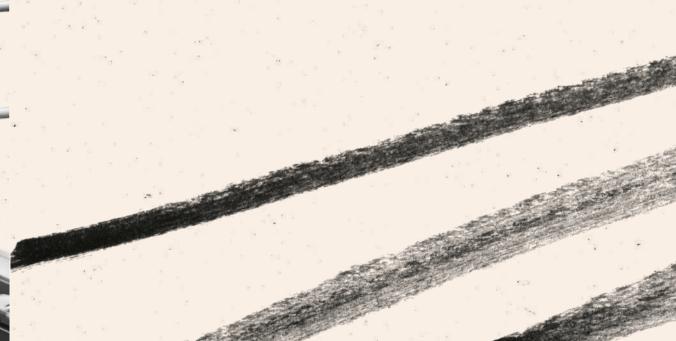


## ROAD SAFETY COUNCIL



----- Road Safety Awareness Animation Video







#### AK AMIR REDUAN BIN PG HASLAN

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amirreduan0013

passionate animator with a versatile skill set, I thrive on adapting to different animation styles. Committed to delivering high-quality work, I eagerly incorporate feedback to refine my creations. As a dedicated team player, I foster collaboration and and thrive in diverse environments.

## ROAD SAFETY AWARENESS ANIMATION VIDEO

## **Project**

## **Synopsis**

This Capstone Project involves developing a combined 2D and 3D animated video for the Majlis Kebangsaan Keselamatan Jalan Raya (MKKJR) to underscore the significance of road safety in our daily lives. This video will be utilized by the MKKJR during World Remembrance Day for Road Victims. It will highlight essential safety measures to protect oneself while on the road.

m ar ha w ch ar th

This project challenged me to create something that I previously believed was impossible for me. It also teaches me the value of project management and cooperation. It shows that I still have a lot to learn about animation, whether it is about character design, character animation, scene design, and so on. Ultimately, it has taught me that I can always improve, no matter the challenges I face.





## ROAD SAFETY AWARENESS ANIMATION VIDEO

### **Project Overview**

The project is to raise awareness about the importance of road safety in our everyday life. To spread this awareness, video animations is created. A total of three video animation for this project.

The first video is a 3D animation about the importance of safety when using the road on everyday life.

The second video is about the safety precaution that we should as a cyclist

The third video is relates with "POWER". Checking the vehicle's petrol, oil and water leakage, electric, and rubber.

### **Major Phases**

Pre-Production

Production

Post-Production

#### Software used









## Aims & Objective

To support MKKJR's 0 fatalities vision on road involving accidents.

### **Target audience**

Teens and young adults.

#### Video Analysis

The viewer thought that the video is well done with the animation, design and sound

Feedbacks that i got from my first drattis that the hand was too big,

Some of the scene were not relatable to Brunei. and suggest to add more features to make it look more Brunei.











## OTTER COMPANY







1 — 3D Animation Short Film





#### **MUHAMMAD NUR SYAZWI BIN ZAINI**

### BSc. (Hons) in Creative Multimedia

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Reflectio

A 3D animator who enjoys animating and making various scenes.

## 3D ANIMATION SHORT FILM

## **Project**

## **Synopsis**

Creating a 3D animation of the children's book called Hermit by Poni Parables, which follows the journey of Filip, the Malayan Frog. Throughout the story, Filip navigates various scenarios and, in the end, learns to open up to other frogs, moving past his preference for solitude.

This project enhanced my animation skills and encouraged me to think creatively about scene composition and character placement. It also improved my time management abilities, as the process involved numerous tasks, from character design to crafting the backgrounds for each scene.

## **3D ANIMATION SHORT FILM**

The purpose of this final year project is to use Blender to create a 3D adaptation of Poni Parables' picture book "Hermit."

Muhammad Nur Syazwi bin Zaini

Bachelor of Science in Creative Computing Major in Creative Multimedia



University Teknologi Brunei



#### INTRODUCTION

The Hermit book narrates the story of Filip, a Malayan horned frog, and his transformative ignorance and a state of contentment and enjoyment beyond his comfort zone. The short film's animation will feature the rigging of multiple frogs within the scene and the use of various camera angles to enhance the audience's

#### OBJECTIVE

- . Tell a story that will captivate a large audience both visually and emotionally.
- · Represent the Hermit book concepts and feelings with clarity using 3D animation.
- Use music and sound effects to strengthen the storyline of the animation.



#### TARGET AUDIENCE

Children and young adults are the main target audience for this 3D animated short film because of its moral and educational topics, which are very relevant and enlightening for this age group.

#### METHODOLOGY

Pre-Production: -

- Brainstorming
- · Research: -
- I. Themes 2. Design
- Storyboard
- · Animatics Concept Moodboard

#### Production: -

- · Audio (Voiceover)
- Animation
- Rigging Set Design
- Modelling

#### Post-Production:

- Rendering · Animation
- Editing



#### CONCLUSION

By using animation methods and captivating visual storytelling to bring the story to life, the 3D animated adaptation of the Hermit book successfully accomplishes its goals. This project enriches cultural and educational content for a varied audience while providing and professional development opportunities.

- References -• YouTube (2022, June 1). How to mix 2D and 30 animation, YouTube. https://www.youtube.com/watch?
- <u>x=W/ZmtAZsMdg.</u> YouTube. (2020, January 30). How Netflix's "Klaus" made 2D animation look 3D I movies insider. YouTube.
- https://www.youtube.com/watch?
- v=BILM9dJhfcw. YouTube. (2023, June 28). My blender 2D/30 process with Grease Pencil. YouTube https://www.youtube.com/watch? v=BzTN2yTgT)0&t=I59s









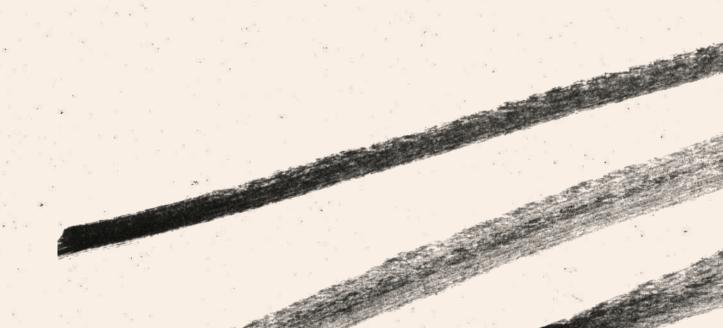


## PIXELATED BRUNEI



AR Shooting Game







#### AIMAN SAHL BIN ROSMAN

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ard-working and inclined to find creative solutions in multimedia design, with a keen eye for animation.

# AR SHOOTING GAME

# **Project**

# **Synopsis**

An Augmented Reality mobile game where players can have a shooting duel with each other or in a team utilizing AR technology set in the wild-west era.

Reflection

This project allowed me to explore the depths of 3D modeling and tackle its challenges, while also improving my efficiency and skills in development planning and collaboration for this type of work.

#### AR SHOOTING GAME

**UTB CAPSTONE PROJECT** 

Jame Artist: Aiman Sahl bin Rosman Jame Developer: Muhammad Aulya Syamil

#### INTRODUCTION

Graphics in Augmented Reality (AR) can enchance the experience for the user with the technology, especially if it involves with interactivity and this includes videogames. Nowadays, smartphones are capable enough to run AR applications so users can experience the interactivity between the real and the digital world in the palm of their hands.

#### PROBLEM STATEMENT

As part of the game development process, the visual graphics for the AR shooting game can showcase the visual identity of the game.

As the graphics will be mainly using 3D graphics, there are considerations to be made such as what would be the theme and artstyle of the game? will it bring interests to the audience? how will it affect the performance of the game?

#### **OBJECTIVES**

As the objective is to provide visual graphics or game assets for the AR shooting game, it consists of:

- Create a wild-west themed with a cell-shaded artstyle
- Creating 3D Models, including textures and animations
- Creating the user-interface (UI) for the main gameplay
- Ensuring optimization techniques for
- Exporting and importing the assets into Unity







#### MUHAMMAD AULYA SYAMIL

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Be behance.net/Aulya

Reflection

recent digital media graduate with foundations in video production, graphic design, game design, software development and digital marketing.

# AR SHOOTING GAME

# **Project**

# **Synopsis**

Introducing an innovative AR shooting game designed to rival traditional paintball and laser tag experiences. Developed in-house, this game offers an immersive augmented reality environment where players can visit designated play areas to engage in dynamic combat. It provides a safer alternative and is easier to set up and launch compared to both paintball and laser tag. By combining cutting-edge AR technology with engaging gameplay, this game creates an exciting new option for interactive entertainment.

opportunity in AR development and app networking. My internship also provided me with the chance to effectively manage the project by setting realistic goals and implmenting sprints to complete various features of the app.

This project was an excellent learning

اونیورسیتی تیکنولوکی برونی س UNIVERSITI TEKNOLOGI BRUNEI

BSC (Hons) In Digital Media

Supervisors: Ibrahim Edris (UTB) Dr.Ahmed Elaklouk (UTB) Izzudin Hussin (Industrial)

# AR SHOOTING GAME

#### INTRODUCTION

This project develops an augmented reality(AR) multiplayer shooting game that offers a safe and immersive combat experience. Unlike traditional games like laser tag and paintball, this AR game leverages smartphone technology to provide unique interactive gameplay without the cost and safety concerns. It highlights innovative approaches to gaming, demonstrating AR's potential in the entertainment industry, making it valuable for entrepreneurs and game developers.

PROBLEM STATEMENT

Despite the innovative potential of AR

shooting games like Father.io, Reality

availability. Traditional laser tag and

experiences, and lower startup costs,

alternative to traditional combat sports.

offering a safer and more affordable

paintball businesses, on the other hand,

Clash, and RealTag, the market is hindered

by reliance on additional hardware, lack of

developer support, and app store removals,

leading to abandoned projects and limited

face high startup costs and safety concerns.
This highlights the need for a new approach:

an in-house, business-exclusive AR shooting

game that ensures quality control, tailored

#### FEATURES & MECHANICS

- Device communication for multiplayer interaction Health system
- Player Recognition using device camera
- Player tracking using GPS and Player Recognition
- Cover detection
- Simple UI deisan
- Player interaction
- Player shooting







**TOOLS** 

# Visual Stu

# RESULTS

Achieved Minimum Viable Product (MVP) stage. Fully playable with all core mechanics implemented, including multiplayer mode, shooting capabilities, player tracking, and cover detection.

# CONCLUSION

The AR multiplayer shooting game development has provided valuable insights and laid a strong foundation for future improvements. Although not yet ready to compete with established sports like laser tag and paintball, the project demonstrates the potential of AR technology to enhance traditional recreational activities.

# GAME CONCEPT

The game is designed as a safer, more affordable alternative to traditional Paintball and Laser Tag, targeting the Brunei market. It offers reduced startup and maintenance costs, enhanced safety through controlled access, and a unique selling point of exclusivity. The game provides a tailored customer experience with better quality assurance by focusing on specific hardware and environments, and it avoids the need for ads and in-app purchases, simplifying revenue streams.

#### **FUTURE DIRECTION**

The focus will be on refining the core game mechanics, resolving any emerging bugs through ongoing testing, and improving the player experience with high-quality assets like gun models, hand models, and animations.







# RADIO TELEVISION BRUNEI





1 — Arena Akademia

PSA: Benefits Of Getting Quality Sleep & Kindness

**3** — PSA : Dramatized & Filler

PSA: Embracing Quality Time With Family And Recipe For Success





#### MUHAMMAD AIMAN@MAHADI **BIN AIDEE SUHERMAN**

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highly passionate member of the creative arts with foundations in film works particularly in directing and producing.

# ARENA AKADEMIA

# **Project**

# **Synopsis**

"Arena Akademia" is a one-off quiz show programme that challenges contestants' knowledge, quick thinking skills, and reaction time. With a gameplay that revolves around a buzzer system, it will utilize a different format as per the different rounds for a dynamic and refreshing take on typical quiz game shows with a buzzer system.

expanded my technical knowledge in working as part of a multi-camera, studio-based production team. It has also enhanced my skills as a director and producer, providing valuable insights for my future endeavors in my creative career.

This project has considerably

#### PRESENTING



#### MIND RACE: THE ULTIMATE BUZZER CHALLENGE

#### PROJECT OVERVIEW

QUICK THINKING SKILLS, AND REACTION TIME, WITH A GAMEPLAY THAT REVOLVES AROUND A BUZZER SYSTEM IT WILL UTILIZE A DIFFERENT FORMAT AS PER THE DIFFERENT ROUNDS FOR A DYNAMIC AND REFRESHING TAKE ON TYPICAL QUIZ GAME SHOWS WITH A BUZZER SYSTEM.

#### PROJECT OBJECTIVES

TO CREATE THE MOST EFFECTIVE PLANNING WITH MINIMAL RESOURCES NEEDED FINDING OUT THE BARE NON-NEGOTIABLE NECESSITIES THAT IS NEEDED REGARDLESS OF BUDGET IN ORDER TO PRODUCE A QUALITY GAME SHOW

#### TARGET AUDIENCE

UNIVERSITY STUDENTS & YOUTHS

#### **FEEDBACK RESPONSE**

AGREED THEY LEARNT A

WATCH ARENA AKADEMIA

#### METHODOLOGY

DEFINING THE CONCEPT AND FORMAT • SET CONCEPT AND THEME • HOST AND CONTESTANT SELECTION PROCESS • FINAL PITCHING AND FINALIZATION • PAPERWORK AND CONTACT NETWORKING \* SET DESIGNING AND TECHNICAL RIGGING • SCRIPTING AND SHOTLIST • FINAL REHEARSALS

#### PRODUCTION

FINAL CHECKS ON SET . TALENT CARE AND BRIEFING . CREW BRIEFING AND STANDBY • SHOOT START • PLOT TWIST REVEAL • END SHOOT AND PRIZE PRESENTATION • STORAGE AND PREP FOR POST-PRODUCTION

#### POST-PRODUCTION

SUPPORTING ANIMATION WORK WITH THE GRAPHIC DESIGNER/ANIMATOR . SOUND DESIGN AND ENGINEERING CORRECTING FAULTS FROM THE PRODUCTION STAGE

MUHAMMAD AIMAN @ MAHAD BIN AIDEE SUHERMAN BACHELOR OF SCIEMCE IN CREATIVE COMPUTING MAJOR IN CREATIVE MULTIMEDIA









#### **NORHAZIRAH SYAZWANA BINTI SUWARDI**

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daptive creative designer in graphic and animation that enjoys exploring new techniques to bring ideas to life and push the boundaries of creativity.

# ARENA AKADEMIA

# **Project**

# **Synopsis**

"Arena Akademia" is a 50-minute quiz show that tests contestants knowledge, reasoning, and dexterity. The questions cover fundamental topics and include a special theme focused on "Youth Day," providing an engaging and educational experience. Competitors are from Universiti Teknologi Brunei's Sport houses: Crtiv, Xlr8, Proxtiv and Xcel.

This project has improved my understanding of working in a establishment systematic organization. Furthermore, it has helped improve my problem-solving abilities whilst also teaching the importance of patience and communication in teamwork.

"ARENA AKADEMIA" IS A 50-MINUTE QUIZ SHOW THAT TESTS CONTESTANTS' KNOWLEDGE, REASONING, AND DEXTERITY. THE QUESTIONS COVER FUNDAMENTAL KNOWLEDGE AND THE SPECIAL THEME "YOUTH DAY". COMPETITORS ARE FROM UNIVERSITI TEKNOLOGI BRUNET'S SPORT HOUSES: CRTÎV, XLRE, PROXTÎV, AND XCEL.





- · CREATE A THRILLING AND INNOVATIVE TV GAME SHOW
- · CREATE A GAME SHOW COMBINING ANIMATION AND LIVE FILMING
- · CREATE A POSITIVE IMPACT TO SOCIETY AND SUPPORT LOCAL BROADCAST
- · CREATE A HIGH-QUALITY GAME SHOW WITH MINIMAL RESOURCES

#### PRE PRODUCTION

- · CONCEPT DEVELOPMENT
- · CONTENT PLANNING
- SET DESIGN, VISUAL AND THEMATIC PLANNING
- TECHNICAL PLANNING

#### PRODUCTION

- . FINAL SETUP AND COORDINATION
- · CREW AND TALENT BREIFING
- FILMING (ROLE : COMPUTER PROGRAMMER 8
- O POST-FILMING (WEAP UP & PRIZE PRESENTATION SESSION

#### POST PRODUCTION

- MOITAMINA .
- · COMPILING
- EDITING

# Results and Findings

80%

ABOUT SO% OF THE RESPONDENTS ENJOY THE GAME SHOW

ABOUT BO% OF THE RESPONDENTS LEARNED ALOT ABOUT BRUNET AND YOUTH



RESPONDENTS AGREE YOUNG AUDIENCE WILL WATCH THE SHOW

NORHAZIRAH SYAZWANA BINTI SUWARDI \$20210030, Creative Multimedia





#### **NUR ZAHIRAH BINTI HJ ROSLI**

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fter graduating from O levels, I initially considered a science-related career, despite lacking passion for it. My perspective changed during an internship at the Ministry of Health, where my proficiency in PowerPoint led me to roles as a Graphic Designer, Video Editor, and Illustrator. Realizing I could pursue a career I enjoyed, I developed my skills in Adobe, Unity, and Blender at Universiti Teknologi Brunei. Throughout my studies, I discovered a deep passion for animation but remain eager to explore other fields within the creative arts and expand my artistic horizons.

# ARENA AKADEMIA

# **Project**

# **Synopsis**

The Arena Akademia TV show, featuring students from Universiti Teknologi Brunei, is a quiz program in Malay that tests general knowledge and understanding of Youth Day and Brunei-related topics. It aims to promote learning and intellectual growth, aligning with the spirit of the 19th National Youth Day celebrations. The show's format includes buzzer-style questions, engaging participants in a lively competition that encourages quick thinking problem-solving skills.

expanded my technical knowledge in working as part of a multi-camera, studio-based production team. It has also enhanced my skills as a director and producer, providing valuable insights for my future endeavors in my creative career.

This project has considerably



#### **OBJECTIVES**

- 1. Create a guiz on effective means of capturing the interest of young
- 3 Understanding Multi-Camera Production (MCP)

#### TARGET AUDIENCES

# RESULTS



of participants strongly agree that they find the game enjoyable. It's hoped the audience feels the same. The Arena Akademia TV show promotes a culture



est agrees that the script was easy to understand ndicating that the script was well-crafted despite in being the first time creating one for a guiz show



of RTB higher-ups agree that Arena Akademia TV Show Camera Production (MCP) techniques to deliver the

#### CONCLUSION

The production team hopes audiences enjoy the Arena Akademia TV Snow.Feedback is welcome as a learning opportunity. The internship

# METHODOLOGIES

2. Workflow of Scriptwriting

3. Worldlow of Understanding Multi-Camera Production (MCP)

School Of Computing And Information Bachelor of Science in Creative Computing, Major in Creative Multimed a





Ae Pr



#### MUHAMMAD AIMAN BIN **AWANG AMIR**

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y passion for media started with a fascination for music videos, inspiring me to pursue a career in this field. This interest led me to explore Adobe software, where I honed my skills in video editing and animation. Now, I blend creativity and technical expertise to bring compelling stories to life through media.

# **PSA: BENEFITS OF GETTING** QUALITY SLEEP & KINDNESS

# **Project**

# **Synopsis**

"Benefits of Getting Quality Sleep" PSA: Haiyan's late-night gaming causes poor sleep, leading to fatigue and a car accident. In contrast to a better sleep schedule, he wakes up refreshed, excels at work, and engages well with coworkers, highlighting the importance of good sleep for productivity and well-being.

#### "Kindness" PSA:

In a peaceful neighborhood, a young girl helps an elderly woman with her groceries and escorts her home. The grateful woman expresses her thanks by offering food. This act of kindness serves as an inspiration for others. The animation explains the importance of being kind and concludes by encouraging viewers to begin their acts of kindness with a smile.

This project has enhanced my knowledge of creating animations with After Effects and improved my efficiency in working under pressure.











#### **DAYANGKU NUURHAQIMAH BINTI PENGIRAN METALI**

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am someone who has a passion for video editing as I thrive on bringing stories to life through engaging visuals. While video editing is my forte, I am always eager to expand my skill set and explore other forms of multimedia. My dedication to continuous learning and express creativity across various mediums drive my work and inspire me to push boundaries in the world of digital content.

# DRAMATIZED & FILLER

# **Project**

# **Synopsis**

This project is to develop two animated PSA videos, which are dramatized and filler. The videos are aimed at raising awareness on emotional energy conservation and digital wellness. The project provides an opportunity to engage on relevant issues and inspire awareness among viewers.

This project has enhanced my problem-solving skills by tackling technical and creative challenges in animation. Balancing this project with my internship at RTB has improved my adaptability. productivity and Collaborating with industry professionals during my internship offered real-world insights, refining my professional skills. These experiences collectively contributed to my personal and professional growth, equipping me with essential skills for a future in multimedia.



















ANIMATED PSA SHOWCASE



#### AIDA FARIDA BINTI ADRI SYAHME

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reative and versatile graphic designer, animator and photographer with a passion for visual storytelling. Aims to take into consideration of areas of knowledge to provide creative design solutions and eye-catching visual content that meet the every need of every project.

# PSA: EMBRACING QUALITY TIME WITH FAMILY & RECIPE FOR SUCCESS

# **Project**

# **Synopsis**

This project consists of two animation PSAs. Dramatized PSA: "Embracing Quality Time with Family" focuses on the relationship of a girl and her father. The father struggles with work-life balance, affecting their relationship, emphasizing the importance of prioritizing family. Filler PSA: "Recipe for Success" follows a person's journey to become a baker which highlights overcoming obstacles and learning from failures. It aims to inspire perseverance, especially in younger audiences.

The reason for choosing these topics is that PSAs often cover predictable themes. Therefore, to be successful, PSAs need to evoke empathy and align with the interests of the audience.

often overlooked topics, showcasing the power of concise storytelling and impactful animation. This experience deepened my understanding of the creative process and sharpened my skills in problem-solving, critical thinking, and collaborative design.

The animated PSA projects effectively

raised awareness on important but

#### PROJECT OVERVIEW This project consists of two animation PSAs: Dramatized PSA and Filler PSA. 3 5 Dramatized PSA: "Embracing Quality Time with Family'

Focuses on the relationship of a young girl and her father. The father struggles with work-life balance, affecting their relationship. This PSA emphasizes the importance of prioritizing family.

#### Filler PSA: "Recipe for Success"

Follows a person's journey to become a baker. It highlights overcoming obstacles and learning from failures. Aims to inspire perseverance, especially in younger audiences

#### PROBLEM STATEMENT

PSAs need to avoid typical and predictable topics, evoke empathy, and be in alignment with the interests of the audience in order to be successful.

Traditional TV PSAs face challenges from short attention spans, particularly from younger audiences who use platforms like YouTube and Netflix.

Therefore, in order to grab and hold viewers' attention, PSAs should be short, engaging, and relatable.

- Create attention-grabbing animations that have an
- Make PSAs with a purpose that speak to the audience on a personal level.
- Inform and emphasize topics of importance to the general

# **TARGET AUDIENCE**

Generally for the public especially. working-class and young adults.



AIDA FARIDA BINTI ADRI SYAHME (B20210287) BSC IN CREATIVE MULTIMEDIA

#### 5 **METHODOLOGY**

A combined model of the waterfall model and video production phases.

1	Planning
1	Pre-production
1	Design
1	Production/Implementation
1	Post-production
1	Maintenance

#### 6 **TOOLS USED**

















#### FATIN FIRZANAH HJ ROSLI

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- © @sn\_illustrates

i, I'm Fatin! I'm passionate about blending creativity and technology through my interests, which include digital art, 3D modelling, mixed reality, and exploring the world of artificial intelligence. I love expressing myself through various artistic mediums while staying at the forefront of technological advancements.

# AR DIVING

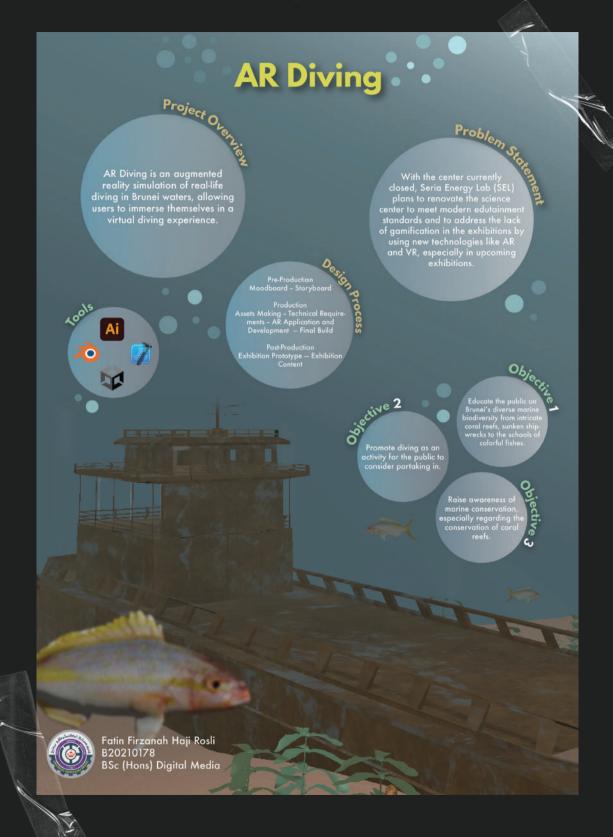
# **Project**

# **Synopsis**

AR Diving is an augmented reality simulation of real-life diving in Brunei waters, offering users an immersive virtual diving experience. This application aims to raise awareness of local marine biodiversity and coral conservation.

# Reflection

The Capstone project allowed me to enhance my technical skills, particularly in Blender, Unity, Xcode and Adobe Illustrator. Collaborating with Seria Energy Lab helped me develop my communication skills, work ethic, project management, and interpersonal skills. Lastly, this project and internship provided me with an opportunity to explore Brunei's diverse and rich aquatic ecosystem and the significance of marine conservation.





#### AK MD ADLI MAHRAN BIN PG HJ MD YUSRA

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nnovative digital media expert with a talent for blending aesthetics and technology to produce impactful content.

# ENHANCING BRAND IMPACT THROUGH INSTAGRAM ANIMATED STICKERS & AUGMENTED REALITY

# **Project**

# **Synopsis**

As traditional approaches to marketing evolve, promotional campaigns face the challenge of not only attracting attention but also leaving a lasting impression. In this capstone project, the aim is to showcase the colors of Seria Energy Lab through augmented reality (AR).

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This project has been instrumental in sharpening my problem-solving skills, creative thingking, user-oriented design skills, as well as refining my practical experience in 3D modelling and animation.

# ENHANCING BRAND IMPACT THROUGH INSTAGRAM ANIMATED STICKERS AND

# AUGMENTED

#### INTRODUCTION

In the realm of marketing, keeping up to date with the technological innovation is crucial to captivate audience and create memorable brand experience. As the traditional approach of marketing evolves, promotional campaigns are faced with the challenge of not only trying to attract, but also leaving a memorable experience a a lasting impact to their audiences. The implementation of AR and animated GIF for Instagram is promising way to redefine the boundaries of various possibilities.





#### OBJECTIVE

The objective is to promote and showcase the colors of Seria Energy Lab, enhancing its brand impact.

#### 

Encourage active participation through AR experience, as well as promoting "user-bystander engagement.

#### PROBLEM STATEMENT

Lacks user interaction and participation Not fully utilizing modern technologies Lacks personal connection

#### PROPOSED SOLUTION

Enhancing visitor engagement Utilization of modern technologies Developing personal connection



#### Project Features

AR Simulation AR Quiz/ Trivia Animated Stickers



#### Plander







### CONCLUSION

integration of AR and Animated content in the realm of marketing represents a ground breaking leap towards transforming conventional showcases into dynamic experiences. With AR, marketing campaigns will no longer remain fixed with its static displays. Instead, evolve into an interactive and fun narratives that will captivate and engage audiences in a unique way.

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#### AIRUL NARSRUL BIN ABDUL NASIR

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A computer nerd who ended up in the creative side because he wanted to make games.

# PIPE ROUTING INTERACTIVE GAME EXHIBIT

# **Project**

# **Synopsis**

I was assigned to create a minimum viable product (MVP) for a game called "Pipe Routing Game". It is a puzzle game where player(s) are required to connect all the pipes together to allow hydrogen gas to pass through. This game was developed using Arduino and Godot 4.

This project have improved my programming skills and allowed me to better understand on how to use Arduino and Godot 4.

# PIPE ROUTING

INTERACTIVE GAME EXHIBIT

#### What is this about?

**Hydrogen gas** (an alternative source of energy) is being transported through a network of pipes. However, the pipes are not entirely connected because of some misalignment. And so, it is the player's responsibility to rotate the pipes in the proper direction through the means of wire connections.



# How to play?

Plug in the wires into the holes in the game board. With the right combinations, you will be able to complete the puzzle!











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Promotional Video of UTB For Student Enrollment







#### JHAMMAD NUR ARIF IZZUDDIN BIN ROSLAN

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am a beginner multimedia artist with a ton of ideas that I express through video. My aim is to develop my skills and gain more knowledge in videomaking. Before pursuing Creative Multimedia, I was a web developer. Initially, I aimed to enhance my design skills, but upon entering the field, I discovered a passion for making videos. I enjoy both the process and the final product, so I plan to continue creating content in this area.

# PROMOTIONAL VIDEO OF UTB FOR STUDENT ENROLMENT

# **Project**

# **Synopsis**

The film focuses on emotions and engagement, showcasing Universiti Teknologi Brunei by highlighting its academic quality, research innovation, and vibrant campus atmosphere. It aims to inspire and foster a sense of belonging. Additionally, the film seeks to boost UTB's digital visibility and attract an international audience, thereby increasing enrollment and differentiating the university from its competitors.

The project has improved my project and time management skills while further developing my overall abilities.

# Promotional Video of Universiti Teknologi





Ps



























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# IN COLLABORATION WITH































# THE PORTFOLIO 2024 CAPSTONE PROJECT COMMITTEE



**Front Row** Adiibah binti Haji Abdul Azim Azman

#### **Middle Row**

Fatin Firzanah Haji Rosli & Siti Nurmudzfirah Aqilah binti Hj Mohd Ibrahim

#### **Last Row**

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#### Photographer

Nia Faziathul Sureya Binti Haji Ghani Siti Nurmudzfirah Aqilah binti Hj Mohd Ibrahim

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#### CREATIVE COMPUTING

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