

Muhammad Azreen Bin Muhammad

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EDUCATION

Singapore Institute of Technology Bachelor of Applied Artificial Intelligence	Aug 2023 – May 2026 (expected)
Temasek Polytechnic Diploma in Computer Engineering	Apr 2016 – Feb 2020
Exchange Program Kumamoto University (Japan)	Feb 2019 – Apr 2019

PROJECTS

SIT X HTX (Home Team Science and Technology Agency) 3D Reconstruction App For Fire Investigation <i>Develop a scalable, near real-time 3D post-fire scene reconstruction application</i> <ul style="list-style-type: none">Utilization of 3D Gaussian Splatting (3DGS) for scene reconstruction for incomplete and damaged structures3DGS can achieve near-real time performance, e.g. less than 1hr on top of the 3DGS scene captured using camera	Jan 2025 – Aug 2025
Anime Image Upscaling with Fine-Tuned Real-ESRGAN (M-ESRGAN) <i>Our goal is to find a new way to tune the R-ESRGAN model specifically for anime and anime upscaling tasks</i> <ul style="list-style-type: none">Utilizing adversarial training to train the model to achieve parity of the upscale image to the source material.Image augmentation by the decade of release of each anime medium to tune it for each generation of anime image quality.	Sep 2024 – Dec 2024

WORK EXPERIENCE

SIT X HTX – Research Assistant <ul style="list-style-type: none">Focus on 3D reconstruction and investigation of post-fire scenesDevelop a scalable, near real-time 3D post-fire scene reconstruction application	Jan 2025 – Aug 2025
Freelancer – Software Engineer <ul style="list-style-type: none">Developed 3D VR software for educational use for studentHand Interaction: Pick up, inspect, and interact with objects using HTC Vive controllers.Teleportation System: Smooth movement with teleportation to avoid motion sickness.	Aug 2022 – Mar 2023
Aviation Virtual Pte Ltd – VR Developer <ul style="list-style-type: none">Worked as a 3D VR programmer of various VR-related projects for clients in varying sectors.Created a login system using text files(.JSON, .txt and .cs) as a database and integrate it on VR projectImplement trigger events as to the certain markers for the workers to practice on a task	Sep 2019 – Feb 2020

SKILLS

- Coding Skill: C, C++, C#, Python, R, MySQL, Java, HTML, CSS, Quarto, Markdown
- Software Proficiency: R Studio, Colab/ Kaggle, Microsoft Office, VS Studio, Power Bi, Unity, Unreal, Godot
- Certificates: AI4I Literacy in AI, AI4I Foundations in AI, Google AI Essentials, Google Business Intelligence, Google Advanced Analytics

HOBBIES & INTERESTS

- Social Ethics, Transformative Content (Video Essays), Technical Writing, Video Gaming and Video Game Analysis.
- Machine Learning, LLM, Deep Learning, Computer Vision, Video & Realtime Upscaling, VR/AR and Chain of Thought