Muhammad Azreen Bin Muhamamd

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Website:

EDUCATION

Singapore Institute of Technology	**Aug 2023 – Aug 2026**
Bachelor of Applied Artificial Intelligence	**(expected)**

Temasek Polytechnic	**Apr 2016 – Feb 2020**
Diploma in Computer Engineering	

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   **Jan 2025 – June 2025**

Develop a scalable, near real-time 3D post-fire scene reconstruction application

- Utilization of 3D Gaussian Splatting (3DGS) for scene reconstruction for incomplete and damaged structures incomplete and damaged structures
- 3DGS can achieve near-real time performance, e.g. less than 1hr on top of the 3DGS scene captured using camera

Anime Image Upscaling with Fine-Tuned Real-ESRGAN (M-ESRGAN)   **Sep 2024 – Dec 2024**

Our goal is to find a new way to tune the R-ESRGAN model specifically for anime and anime upscaling tasks

- 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.

WORK EXPERIENCE

SIT X HTX – Research Assistant   **Jan 2025 – June 2025**

- Focus on 3D reconstruction and investigation of post-fire scenes
- Develop a scalable, near real-time 3D post-fire scene reconstruction application

Freelancer – Software Engineer   **Aug 2022 – Mar 2023**

- Developed 3D VR software for educational use for student
- Hand Interaction: Pick up, inspect, and interact with objects using HTC Vive controllers.
- Teleportation System: Smooth movement with teleportation to avoid motion sickness.

Aviation Virtual Pte Ltd – VR Developer   **Sep 2019 – Feb 2020**

- Developed 3D VR software for educational use for student
- Hand Interaction: Pick up, inspect, and interact with objects using HTC Vive controllers.
- Teleportation System: Smooth movement with teleportation to avoid motion sickness.

SKILLS

- Coding Skill: C, C++, C#, Python, R, MySQL, Java
- Software Proficiency: R Studio, Colab/ Kaggle, Microsoft Office, VS Studio, Power Bi
- Certificates: A4I Literacy-in-AI_AI4I®, A4I Foundations-in-AI_AI4I®

INTERESTS

- Social, Ethics, Transformative Content (Video Essays), Technical Writing, Machine Learning, LLM, Deep learning, Computer Vision, Video Gaming and Video Game Analysis.