Aloysius Chia Zi En

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EDUCATION

DigiPen Institute of Technology / Singapore Institute of Technology — Singapore
Bachelor of Science in Computer Science in Real-Time Interactive Simulation — Expected April 2025

Cumulative GPA: 3.94/5.0;

Relevant Coursework: Graphics Programming; Software Engineering; Operating Systems; Algorithms; Artificial Intelligence; Game Engine Programming

Singapore Polytechnic — Singapore
Diploma in Biotechnology — April 2016 – April 2019

WORK EXPERIENCE

SATS — Singapore
Digital Twin Intern — Sept 2024 – April 2025
- Used the 3D experience software to model and simulate process flows
- Performed Data cleaning using tools such as excel visual basic and C++
- Designed the data pipeline architecture for team of 5 to streamline existing workflows and make them more efficient and scalable

UNIVERSITY PROJECTS

Herald (2nd Year 2D Game Project)
- **C# scripting within a custom game engine.**
- **Collaborative design and coding with multidisciplinary teammates.**
- **Created gameplay prototypes and iterated based on player feedback.**
- **Implemented minion coding using object-oriented programming.**

Primordial Game Engine (2nd Year Custom 2D Engine)
- **Designed and developed using OpenGL and C++.**
- **Integrated 3D audio using FMOD Core Library.**
- **Employed multithreading for efficient asset loading.**
- **Built a custom ECS system for various game components.**

Sketch Game Engine (3rd Year Custom 3D Engine)
- **Developed using Vulkan in C++.**
- **Constructed a custom rendering system and messaging system.**
- **Assisted multidisciplinary teams with workload management, troubleshooting, and bug testing.**

ADDITIONAL

Technical Skills: Advanced in C, C++, C#; Proficient in Graphical Programming , Object-oriented programming, Git based source control , Software design principles,

Soft Skills: Software Testing, Debugging, Communication, Collaboration, Project Management, Adaptable , Eager to learn , Team-Oriented Mindset
Languages: Fluent in English; Conversational Proficiency in Mandarin