Guo Chen

Software Engineer

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EDUCATION

Singapore Institute of Technology & DigiPen Institute of Technology   **Aug 2022 - Present**

Bachelor of Science with Honours in Computer Science in Real-Time Interactive Simulation

Nanyang Polytechnic   **Mar 2017 - Feb 2020**

Diploma in Nanotechnology & Materials Science

PROJECTS

Feline Felony   **Aug 2023 - Mar 2024**

2D Puzzle Platformer game

C | C++ | OpenGL | ImGui | Visual Studios
Challenge: Needed to create an advanced graphic system for an interactive simulation.
Action: Designed and implemented optimized graphics modules using OpenGL, enhancing game visuals and performance.
Result: Delivered a visually immersive experience, improving real-time rendering efficiency.

Pawsie Adventure   **Aug 2024 - Mar 2025**

3D Puzzle Platformer game

C | C++ | OpenGL | ImGui | Visual Studios
Challenge: Required an optimized rendering and UI system for a complex simulation project.
Action: Led the development of rendering algorithms and UI components, ensuring seamless resource management.
Result: Improved user interaction and visual appeal while enhancing system performance.

EXPERIENCE

Software Engineering

ST Engineering   **May 2025 - Apr 2026**

Developing a modular simulation component to procedurally generate entities (buildings, vehicles, characters) on virtual terrain for CNN training. Responsible for:
•Generating diverse, realistic datasets for AI model training.
•Building a configurable UI and UAV simulation for synthetic image capture.
•Supporting system architecture and user manual documentation.
Project focuses on simulation-based data generation for computer vision applications.

TECHNICAL SKILLS

- **Programming Languages**: C, C++, Kotlin, Python, Assembly
- **Graphics & Rendering**: OpenGL, Vulkan
- **Mobile Development**: Android, Jetpack Compose
- **Immersive Technologies**: VR, AR, XR, TypeScript
- **Software & Tools**: Qt, CUDA, Git, Linux, Unity
- **Core Competencies**: Algorithms & Data Structures, Networking, Operating Systems, Machine Learning

SOFT SKILLS

Independent Learner
Self-Directed
Innovative Problem solving
Communication

LANGUAGES

English | Chinese