

Joel Lee Jie

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Personal-Showcase (Code & Demos)

EDUCATION

BSc Computer Science in Real-Time Interactive Simulation

Singapore Institute of Technology - DigiPen

- Currently in Year 2 with a strong academic record: CGPA of **4.78** (as of writing)
- Curriculum focused on core computer science principles, real-time systems, and development methodologies.

TECHNICAL SKILLS

Languages: C++, C#, SQL **Frameworks/Libraries:** WPF (.NET), SDL2, FFmpeg

Databases: PostgreSQL **Tools:** Git, Visual Studio, Windows File Explorer API

Concepts: Object-Oriented Programming (OOP), Data Structures & Algorithms

PERSONAL PROJECTS

GenshinDB

- Developed an interactive desktop application using **C#** and **WPF**, providing a user-friendly interface for data exploration.
- Implemented a robust data pipeline for sourcing, parsing, and storing game information from an official wiki using web scraping and **API integration**.
- Designed and managed the database schema in **PostgreSQL**, hosted on **Netlify** for efficient data storage, retrieval, and scalability.
- Demonstrated end-to-end involvement in the **Software Development Life Cycle**, from data acquisition and database design to UI/UX implementation and deployment.

Video Player

- Engineered a functional audio and visual video player in **C++**, leveraging **FFmpeg** for multimedia decoding and **SDL2** for graphics and audio rendering.
- Integrated with Windows' native file explorer APIs to enable seamless file selection and playback, showcasing system-level programming capabilities.
- Focused on efficient multimedia processing and playback, applying principles of **optimization** and **real-time rendering** for smooth user experience.

WORK EXPERIENCE

Retail Assistant

Chateraise

- Provided professional customer service, adeptly resolving concerns and de-es through effective communication and problem-solving.
- Cultivated strong working relationships with colleagues, fostering a collabora productive team environment.

Signaller, Artillery

Singapore Armed Forces

- Operated effectively in high-pressure, fast-paced environments, demonstrati attention to detail.
- Collaborated closely with team members to achieve operational objectives an performance standards.

VOLUNTEER EXPERIENCE

Ad-Hoc Volunteer

Willing Hearts

- Contributed to various roles in a large-scale food kitchen operation, collabora teams to serve the community.