

Joel Lee Jie

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Summary

Highly motivated and passionate Computer Science student specializing in Real-Time Interactive Simulation with a strong foundation in C++ and C#. Eager to apply robust object-oriented programming skills, problem-solving abilities, and a deep passion for video games to contribute to innovative game development at Riot Games. Demonstrated ability to thrive in challenging environments and collaborate effectively within a team.

EDUCATION

BSc Computer Science in Real-Time Interactive Simulation

Singapore Institute of Technology - DigiPen | Aug 2023 - Current | Singapore

- Engaged in a specialized curriculum focused on C++, real-time systems, game engine architecture, and graphics programming, directly relevant to game development.
- Achieved a strong academic record with a CGPA of 4.78 (as of writing), demonstrating strong analytical and technical proficiency in complex computer science concepts.

PERSONAL PROJECTS

View all projects on GitHub: github.com/JoelLeeJie/Personal-Showcase

Project Showcase Playlist: [YouTube Playlist](#)

Video Player

github.com/JoelLeeJie/Video-Player

- Developed a robust audio and visual video player from scratch using C++, demonstrating strong command of low-level programming and system integration.
- Integrated external libraries FFmpeg for media decoding and SDL2 for rendering, showcasing ability to work with complex APIs and multimedia frameworks crucial in game development.
- Implemented core playback functionalities and integrated with Windows' file explorer, applying object-oriented design principles for modular and maintainable code.

GenshinDB

github.com/JoelLeeJie/GenshinDatabase

- Engineered an interactive database application for Genshin Impact, a popular game, underscoring a deep passion for the gaming industry and data management.
- Built a WPF .NET application in C# with a PostgreSQL backend, demonstrating full-stack development capabilities including UI/UX design and database interaction.
- Designed and implemented a system for sourcing, parsing, and formatting data from an official game wiki, storing information in a cloud-hosted database (Neon.Tech).
- Enabled efficient data retrieval and dynamic display to the user through WPF, focusing on intuitive user experience and clear data presentation.

SKILLS & INTERESTS

Programming Languages: C++, C#, SQL

Game Development: SDL2, FFmpeg, Real-Time Interactive Simulation, Object-Oriented

Tools & Technologies: PostgreSQL, WPF, .NET, Git

Soft Skills: Communication, Problem-Solving, Teamwork, Adaptability, Debugging, Opt

Interests: Action and Fantasy Manga, Shooter/Gacha Games (especially miHoYo's ZZZ)

WORK EXPERIENCE

Signaller, Artillery

Singapore Armed Forces | Apr 2021 - Feb 2023 | Singapore

- Thrived in a demanding, fast-paced operational environment, consistently performing under pressure and adapting quickly to complex scenarios.
- Cultivated strong collaborative relationships with team members, ensuring effective communication and coordination for critical mission success.
- Demonstrated reliability and resilience in high-stress situations, developing strong problem-solving capabilities essential for dynamic environments.

Retail Assistant

Chateraise | Feb 2023 - Aug 2023 | Bishan

- Resolved customer concerns promptly and professionally, demonstrating effective communication and conflict resolution skills under pressure.
- Built and maintained positive working relationships with colleagues, fostering a jovial and productive team environment.
- Managed daily operations efficiently, ensuring smooth customer experiences and contributing to overall team performance.

Retail Assistant

NTUC Warehouse Club | Feb 2021 | Joo Koon

- Facilitated efficient customer shopping experiences through attentive service and support in a dynamic retail setting.
- Developed strong interpersonal skills in a customer-facing role, enhancing problem-solving and service delivery.

VOLUNTEER EXPERIENCE

Willing Hearts

2024 - Current

- Serving as an ad-hoc volunteer in diverse roles, collaborating with individuals from various backgrounds to support community initiatives.
- Contributes to a food kitchen serving the poor and elderly, demonstrating strong community engagement and empathy.

City Harvest Church

April 2020 - Dec 2020

- Served as an usher for 9 months, guiding attendees and supporting church operations, enhancing organizational and logistical skills.

Tembusu Senior Activity Centre

March 2019 – March 2020

- Participated in planning and executing engaging activities for the elderly as an Interact Club member, fostering empathy and event management skills.