# Joel Lee Jie

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## **Professional Summary**

Enthusiastic Computer Science student specializing in Real-Time Interactive Simulation, with a strong foundation in C++, C#, and robust database management (PostgreSQL). Eager to apply problem-solving and backend development skills to build scalable and efficient systems, seeking a challenging Software Engineer role at a dynamic company.

### **Skills**

- Programming Languages: C++, C#, SQL (PostgreSQL)
- Databases: PostgreSQL
- Tools & Technologies: Git, WPF, FFmpeg, SDL2, Visual Studio, Neon.Tech
- Concepts & Methodologies: Backend Development, API Design, Data Structures, Algorithms, Software Design Principles, Troubleshooting & Debugging, Real-time Systems
- **Soft Skills:** Communication, Problem-Solving, Teamwork, Adaptability, Customer Service, Performance Under Pressure

## **Education**

### **BSc Computer Science in Real-Time Interactive Simulation**

Singapore Institute of Technology - DigiPen

Aug 2023 - Current

- Year 2 Student
- CGPA (as of writing): 4.78

## **Personal Projects**

#### GitHub Personal Showcase

**Project Showcase:** YouTube Playlist

#### **GenshinDB**

#### GitHub Repository

- Developed an interactive database application using C# and PostgreSQL, demonstrating robust backend and UI development capabilities.
- Implemented data sourcing, parsing, and storage into a Neon.Techhosted PostgreSQL database, showcasing strong SQL proficiency and database design.
- Designed and implemented a WPF UI to display accessed data, integrating frontend and backend logic for a seamless user experience.

#### **Video Player**

#### GitHub Repository

- Engineered a full audio and visual video player in C++ using FFmpeg and SDL2, focusing on performance and real-time processing.
- Integrated Windows' file explorer for seamless media access, demonstrating system-level programming and API interaction.

## **Work Experience**

#### **Retail Assistant**

Chateraise

Bishan, SingaporeFeb 2023 - Aug 2023

- Resolved customer conflicts and concerns, showcasing strong communication and problem-solving abilities.
- Collaborated effectively with colleagues, fostering a positive team environment and improving operational efficiency.

### Signaller, Artillery

Singapore Armed Forces

SingaporeApr 2021 - Feb 2023

- Thrived in a fast-paced working environment, demonstrating resilience and adaptability under pressure.
- Built close relations and collaborated effectively with team members in high-stress situations.

#### **Retail Assistant**

NTUC Warehouse Club

Joo Koon, SingaporeFeb 2021

 Helped to facilitate customer shopping experiences, ensuring smooth and efficient service.

## **Volunteer Experience**

#### Volunteer

Willing Hearts

2024 - Current

 Serving as an ad-hoc volunteer in various roles and responsibilities within a food kitchen serving the poor and elderly, collaborating with diverse groups.

#### **Usher**

City Harvest Church

April 2020 - Dec 2020

• Served as an usher, guiding attendees and supporting church operations for 9 months.

#### **Interact Club Member**

Tembusu Senior Activity Centre

March 2019 - March 2020

• Participated in planning and carrying out engaging activities for the elderly, demonstrating teamwork and community involvement.