

# Jun Kai Zhang

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## SKILLS

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**Languages:** JavaScript, TypeScript, HTML, CSS, Java, Python, C++, C, Bash, SQL, GLSL

**Frameworks:** React, React Native, Angular, Node.js, Express.js, Flask

**Databases:** PostgreSQL, MongoDB, SQLite, Firebase

**Tools:** Git, GitHub, Docker, VS Code, Android Studio

## EDUCATION

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**Honours Bachelor of Science | University of Toronto Scarborough**

**Toronto, O.N.**

Specialist in Computer Science Co-op

Sept 2022 - Apr 2026

CGPA: 3.57/4.00

## PROJECTS

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### Dungeon Venture

Dec 2024 - Present

- Developed a custom engine library in **C++** and utilised **GLSL** to write various shaders for rendering components in the level editor
- Wrote useful **debugging** macros for logging messages and breakpointing which significantly speed up debugging sessions
- Applied **OOP** and **SOLID** principles to abstract the code for improved modularity and maintenance

### CollabPen

Oct 2024 - Dec 2024

- Engineered a code collaboration **React** web app utilising **Node.js**, **Express.js**, and **y-websocket** to enable real-time communication
- Resolved server hanging issues by utilising **Web Workers** and a **Redis** cache server to handle long tasks like invoking an LLM
- Designed an API that adhered to **RESTful API** best practices to systematically organise tasks into discrete API endpoints
- Streamlined the production and development environments by leveraging **Docker** and automated deployment by using **GitHub Actions**

### GoHere App

Jan 2024 - Apr 2024

- Wrote comprehensive **unit tests** and **integration tests** for the **API** using **Jest** which ensured the reliability of the backend API on various inputs
- **Resolved pull requests** by collaborating with team members during **standup meetings**, ensuring smooth code integration and maintaining a streamlined development process
- Engaged in **Scrum Poker** sessions at the beginning of each sprint to analyse the estimated effort for each user story and distribute them to members accordingly
- Crafted a **Shell/Bash** script with written documentations to easily configure default variables needed to launch the app

### Stock Social Network

Jul 2024 - Aug 2024

- Built a stock social networking app with **React**, integrating **PostgreSQL** for capturing relational representations of data
- Applied **normalisation** techniques to ensure the database is in BCNF, minimising data redundancy and anomalies

### Instamall

May 2023 - Aug 2023

- Constructed an **Android** e-commerce app, employing **Java** for backend interactions and **Firebase** for an easy-to-use object-oriented interface for data storage and retrieval