

Calvin Liu

Software Developer · Systems Design Engineer · Student

✉ calvin.liu@uwaterloo.ca | 🌐 github.com/liucalvin |  Calvin Liu | 🌐 www.calvinliu.me

SKILLS

Languages	Java, Kotlin, Javascript, C++, PostgreSQL, SQLite, CSS, HTML, JSX, XML, Git
Frameworks/Libraries	Node js, React js, Express, Axios, BCrypt, Retrofit, JUnit, Koin, Robolectric, Mockito
Tools	REST, GraphQL, MongoDB, JWT, Github Actions, Postman, Heroku, Codecov

PROFESSIONAL EXPERIENCE

Score Media and Gaming Inc. — Android Developer Intern JAN 2021 - APR 2021

- ❖ Improved user experience by developing features and fixing bugs on theScore app in **Kotlin** and **GraphQL**
- ❖ Decreased app crashes by writing code with 100% unit test coverage with **JUnit**, **Robolectric**, and **Mockito**
- ❖ Streamlined existing codebase by implementing modern technologies and code best practices such as migrating to view bindings, modularizing code, and using dependency injection
- ❖ Gained experience in agile development practices and collaborated regularly with other developers, designers, and product managers to create effective and practical software solutions

PERSONAL PROJECTS

Reflect (Node js, Kotlin)

- ❖ Designing a journaling app on Android, using **Retrofit** for networking and **Room** for storage (in progress)
- ❖ Created a backend **REST API** with Node js, using **MongoDB** for storage and **JWT** for user authentication

Memorybee (Node js, React js)

- ❖ Developed a flashcard site that auto generates cards using word definitions and usages from WordsAPI
- ❖ Used **PostgreSQL** for storage, **JWT** tokens for user authentication, and **Axios** for networking

8 Puzzle (Kotlin)

- ❖ Built an interactive 8 Puzzle game on Android with **MVVM** architecture and a **Github Actions CI** workflow
- ❖ Implemented the A* algorithm to find an optimal solution to the 8 Puzzle

Seam Carver (Java)

- ❖ Implemented seam-carving, a content-aware image resizing technique (*resizes images without distortion of important content*), by finding shortest directed paths using the topological sort algorithm

OTHER EXPERIENCE

Tech+ UWaterloo — Logistics Organizer DEC 2020 - Present

- ❖ Creating a more inclusive tech community at UWaterloo by planning 7+ events, increasing outreach to over 500 students, and designing resources to help underrepresented groups get into the tech industry

TutorHour — Educational Consultant DEC 2019 - JUN 2020

- ❖ Increased revenue and customer base by reaching out to potential clients and conducting consultation sessions, bringing in over 50 new customers

EDUCATION

University of Waterloo — B. A. Sc. in Systems Design Engineering (Co-op) 2020 - 2025

INTERESTS

In my spare time, I enjoy running, playing chess, reading books, and volunteering at local festivals.