

# Calvin Liu

Software Developer · Systems Design Engineer · Student

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## SKILLS

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

## EDUCATION

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

## PROFESSIONAL EXPERIENCE

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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

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Reflect (Node js, Kotlin) — Ongoing

- ❖ Designing a journaling app on Android, using Retrofit for network requests and Room for local storage
- ❖ Creating a backend REST api with Node js, supporting user registration, login, storage, and authentication

8 Puzzle (Kotlin)

- ❖ Built the 8 Puzzle game on Android with an interactive and playable UI using MVVM architecture
- ❖ 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, by finding shortest directed paths using the topological sort algorithm

Personal Website (React js)

- ❖ Developed a fully responsive website with Javascript, bootstrapped with Create React App.
- ❖ Created custom reusable React components using JSX and CSS

## OTHER EXPERIENCE

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Tech+ UWaterloo — Logistics Organizer DEC 2020 - Present

- ❖ Creating a more inclusive tech community at the University of Waterloo by planning events, increasing program outreach, 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 clients

## INTERESTS

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