

Brian Gao

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EDUCATION

University of Waterloo – Systems Design Engineering (Bachelor of Applied Science) **2021 – 2026**
Courses: Data Structures and Algorithms (C++), Digital Systems (C) Cumulative GPA: 89% (3.95/4.0)

SKILLS

Languages: TypeScript/JavaScript, Kotlin, Python, SQL, Golang, HTML/CSS

Frameworks: Amazon Web Services, NodeJS, Express, Docker, Kubernetes, Google Cloud Platform, Mocha/Chai

Libraries/Tools: Git, React, Redux, PostgreSQL, MySQL, Unix/Linux, REST APIs

EXPERIENCE

Faire – Incoming Backend Engineer Intern **May 2023**
▪ Joining Faire’s backend team for the summer using languages/tools such as **Kotlin, JUnit, Guice, and MySQL**

Waterloop – Project Lead **May 2022 – Present**
▪ Led a team of 7 developers for the content management system by hosting work sessions and standups
▪ Developed **3+ REST APIs** with the **PERN stack** for a website facing potential sponsors and **5000+ monthly views**
▪ Designed the database schema and 15+ unit/integration tests for the team merch store using **database design methodology** and **Mocha/Chai**, allowing supporters to buy merch and assist the team financially
▪ Built a secure and industry-standard authentication flow by integrating OAuth 2.0 with Google Identity

Arctic Wolf Networks – Software Engineer Intern **Sep 2022 – Dec 2022**
▪ Deployed a user interface in Django with **Kubernetes** for a security database used by **1000+ stakeholders**
▪ Integrated **CI/CD** with GitHub Actions, Bazel, and Harness, automating **AWS deployments (Helm, EKS, S3)**
▪ Architected a field-mapping framework with **Python** and C4 system diagrams, eliminating pipeline bottlenecks
▪ **Won a company hackathon (80+ participants)** with a team by designing **Golang** APIs that block malicious IPs

JANA Solutions – Software Engineer Intern **Jan 2022 – Apr 2022**
▪ Pioneered 4+ project deliverables with **React/Redux** for a risk management tool generating \$20 million/year
▪ Implemented downloadable reports using **TypeScript**, providing customers with PDFs presentable to executives
▪ Published 5+ npm packages with Storybook and Lerna, providing the team with reusable React components
▪ Spearheaded a company presentation on web security to 50+ employees, increasing awareness of best practices

Midnight Sun Solar Car Team – Firmware Developer **Sep 2021 – Jan 2022**
▪ Programmed microcontrollers in C that controlled the power distribution and internal state of a solar car
▪ Validated circuit boards by doing manual and automated testing with Python, achieving high test coverage

PROJECTS

ScanEats (winner) | *Python, JavaScript, Flask, React, TensorFlow, Postman* **GitHub**
▪ Built a **hackathon-winning (200+ participants)** lifestyle app with Flask that analyzes the freshness of fruits

Youtistics | *TypeScript, React, Google Cloud Platform, YouTube Data API, Google Identity, Postman* **GitHub**
▪ Engineered a stats app using **GCP** and the **YouTube Data API** that provides insight into YouTube viewing-habits