Brian Gao

bhgao@uwaterloo.ca | (416) 839-8839 | briangao.me | linkedin.com/in/bhgao | github.com/BENJIGAO

EDUCATION

University of Waterloo

Systems Design Engineering - Bachelor of Applied Science

- Cumulative GPA: 89% (3.95/4.0)
- Relevant Courses: Data Structures and Algorithms (C++), Digital Systems (C)

SKILLS

Languages: TypeScript/JavaScript, Python, SQL, Go, C/C++, HTML/CSS
Frameworks: Amazon Web Services, NodeJS, Express, Docker, Kubernetes, Google Cloud Platform
Libraries/Tools: Git, React, Redux, PostgreSQL, Bazel, Harness, Jira, Postman, Unix/Linux, REST APIs

EXPERIENCE

Project Lead/Full Stack Developer   **May 2022 – Present**

Waterloop   *Waterloo, ON*

- Led a team of 7 developers by hosting work sessions and standups, completing project deliverables for our CMS
- 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 **systems design methodologies** and **Mocha/Chai**, allowing members and 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**

Software Engineering Intern   **Sep 2022 – Dec 2022**

Arctic Wolf Networks   *Eden Prairie, MN*

- 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 (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 **Go** APIs that blacklist malicious IPs

Software Engineering Intern   **Jan 2022 – Apr 2022**

JANA Corporation   *Aurora, ON*

- 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

Firmware Developer   **Sep 2021 – Jan 2022**

Midnight Sun Solar Car Team   *Waterloo, ON*

- 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 – WinHacks (winner) | *Python, JavaScript, Flask, React, TensorFlow, Postman*

- Built a **hackathon-winning (200+ participants)** lifestyle app with **Flask** that analyzes food quality

Youtistics | *TypeScript, React, Google Cloud Platform, YouTube Data API, Google Identity, Postman*

- Engineered a stats app using **GCP** and the **YouTube Data API** that provides insight into YouTube viewing-habits