

Brian Gao

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EDUCATION

University of Waterloo

September 2021 – May 2026

Bachelor of Applied Science in Systems Design Engineering

Waterloo, ON

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

EXPERIENCE

Security Developer Intern

September 2022 – Present

Arctic Wolf Networks

Eden Prairie, MN

- Launched 3 new features in **Golang** with **Kubernetes** for a threat intel platform used by 5000+ stakeholders
- Scoped **AWS (EKS, S3, SQS)** system architecture decisions within financial constraints for R&D management
- Developed a **Python** malware analyzer to conduct static analysis, **generating 12% more security events**
- Increased threat intel by 7% by constructing 5+ OpenCTI connectors that parse information from news feeds

Full Stack Developer

May 2022 – Present

Waterloop

Waterloo, ON

- Streamlined a full stack website and CMS with **PERN** and **Docker** for a hyperloop design team
- Integrated authentication token sessions with **Google Identity**, improving developer workflow by reducing logins
- Wrote integration and unit tests with Mocha and Chai, increasing test coverage by 15%

Software Developer Intern

January 2022 – April 2022

JANA Corporation

Aurora, ON

- Built features with **React** and **Redux** for a pipeline integrity management tool generating \$20 million annually
- Implemented a table manipulation feature, export-report page, and search optimization/filtering by collaborating with developers, **reducing project workload by 15%**
- Presented features in sprint demos to **100+ clients and executives**, incorporating feedback regularly
- Published 5+ npm packages with Storybook and Lerna, enabling code reusability across the software team
- Spearheaded a company presentation on web security to 50+ employees, increasing awareness on best practices

Firmware Developer

September 2021 – January 2022

Midnight Sun Solar Rayce Car Team

Waterloo, ON

- Programmed firmware in **C** to control power distribution and monitor the state of the MSXIV, a custom solar car

PROJECTS

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

- Built a **hackathon-winning (200+ participants)** lifestyle app with **Flask** that analyzes food quality
- Leveraged a TensorFlow object detection model, enabling clear pictures to be sent to classification models

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

- Engineered a statistics app using **GCP** and **YouTube Data API** that provides insight into user viewing-habits
- Built a secure and industry-standard user flow by integrating OAuth 2.0 authentication with Google Identity
- Implemented a multi-layered dashboard with ECharts, enabling millions of records to be displayed to users

G-aim - StormHacks | *React, Node, Express, MongoDB, Postman*

- Created an educational aim-training game with **MERN** that educates users about climate change
- Leveraged **Node/Express, MongoDB, and Postman** to build the backend and create a real-time leaderboard

SKILLS

Languages: TypeScript/JavaScript, Python, SQL, Golang (Go), C/C++, HTML/CSS

Frameworks: Amazon Web Services (AWS), Kubernetes, Airflow, Google Cloud Platform (GCP), Express, Flask

Libraries/Tools: React, Node.js, Docker, PostgreSQL, MongoDB, Mocha/Chai, Postman, Jira/Confluence, Linux/Unix