

# Bradley Herrera Contreras

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## Skills

**Programming** Python, JavaScript, C++, Go, TypeScript, SQL, R, HTML, CSS

**Tools** Node.js, React, Flask, Express.js, Docker, Git, InfluxDB, PostgreSQL, Redux, Material UI

## Experience

### Software Engineer Intern

Google

Waterloo, ON

Aug. 2024 - Nov. 2024

- Research on statistically guaranteed Gemini-assisted telemetry configurations in GCP.

### Software Engineer Intern

Netflix

Bay Area, CA

May 2024 - Aug. 2024

- Deployed a **Node.js SDK** and **tooling** to all **500+** supported internal JavaScript apps, enabling complete **observability** by collecting crucial code health insights on every change.
- Pioneered an automated campaign which flagged code change issues, driving compliance across over **10** monorepos.
- **Accelerated** support ticket resolution roughly **20 minutes** by instantly logging insights previously parsed by humans.

### Full Stack Software Developer

Arcturus Networks

Remote

May 2023 - Aug. 2023

- Spearheaded the **alpha launch** of our Embedded Computer Vision Surveillance app in **React** which increased product exposure and interest among **40 industry leaders** and over **500 potential customers**.
- Enhanced the **Computer Vision** algorithm by incorporating **object-oriented design in C++**, introducing **20+ user-configurable parameters** that provide full range of controls and low-latency updates.
- Built a dynamic statistics dashboard by expanding **REST APIs** and using **socket.io** to display vital time series data from **InfluxDB** and **PostgreSQL**, optimizing graph algorithms and queries that **accelerated data retrieval** by **45%**.

### Performance Analyst

Desjardins

Remote

Jan. 2022 - Apr. 2022

- Shared over **10 scripts** in **SQL** and **SAS** that streamlined data manipulation **saving 25%** more time.
- Optimized financial investments of over **\$50,000** by delivering data-driven insights from large-scale datasets.

## Projects

### Journal Vision 🗝️

- Engineered a full stack video gallery search app using **React**, **Flask**, **Python**, **scikit-learn**, and Google Cloud APIs.
- Developed an efficient video timestamp retrieval system that analyzes cosine similarity across audio and visual data, winning **2nd place** at The GoldenHack.

### Visual Scroll Article: Explore the STEM Gender Gap 🗝️

- Designed a scrollytelling article using **React** and **TypeScript** that explores the STEM gender gap across the world.
- Created **7 interactive data visualizations** using **D3.js** that allow users to explore the data with custom widgets.

### Interactive Glucose Visualization Dashboard 🗝️

- Developed the pre-processing of over 2 years of my Type 1 Diabetes glucose data using **Python Pandas**.
- Created an **interactive dashboard** including 3 plots, 1 interactive table, and 2 search widgets using the Panel library.
- Configured project environment in **GitHub** to deploy web application using **Heroku**, providing online access for users.

## Leadership

### Frontend Engineer 🗝️

Hack the North

Waterloo, ON

Mar. 2023 - Present

- Launched a user-friendly Hacker Application website, securely **hosting 6,000+ applications** for our 2023 event.
- Engineered **QR code-enabled digital tickets** on web, Apple wallet, and Google wallet which **automated registration for 1,800+ attendees**, yielding a **67% reduction** in sign-up time.
- Built the Hack the North website and dashboards using **React** and **TypeScript** for **1,000+ hackers** and **50+ sponsors** generating over **25,000 visitors** in 2 months.

## Education

### University of Waterloo & Wilfrid Laurier University

Bachelor of Computer Science & Bachelor of Business Administration

Waterloo, ON

2020 - 2025

- Relevant Coursework: Data Structures, Algorithms, Object Oriented Design, Intermediate Finance, Options, Derivatives
- Languages: English (Native), French (Fluent), Spanish (Fluent), Mandarin Chinese (Beginner)