

# Isaac Watt

👤 <http://isaacwatt.me>

🌐 IsaacWatt

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## EDUCATION

**UNIVERSITY OF WATERLOO** 🎓 SEPTEMBER 2016 - AUGUST 2021 (EXPECTED)  
Bachelor of Mathematics, Double Major | Computer Science & Statistics

## SKILLS

Languages: C/C++ • Golang • Python • SQL

Technologies: Docker • Kubernetes • Terraform • GCP • Kafka • Stripe • OpenCV

## EXPERIENCE

**POSTMATES** 🌐 SOFTWARE ENGINEERING INTERN

May 2020 - Present | San Francisco, CA (Remote)

- Built a recurring billing platform (leveraging [Stripe](#)) to support [Postmates Unlimited](#) end to end, establishing ownership over subscriptions and abstraction of the payment service provider
- Created a revenue rules engine, which processes financial transactions into accounting journal entries, establishing a single source of truth for financial auditing ([Kafka](#))
- Developed a debt recovery feature in [Golang](#), allowing failed charges to be periodically retried, resulting in a **5%** increase in capture success rate
- Assisted with migration of payment processing service from AWS to GCP ([Terraform](#))
- Extended payment processing API to support alcohol merchant banking, resulting in a **20%** decrease in merchant payment support requests

**UNIVERSITY OF WATERLOO** 🌐 UNDERGRAD RESEARCH ASSISTANT

Jan 2020 - Apr 2020 | Waterloo, ON

- Worked under the supervision of Professor Lesley Istead on research involving stereoscopic 3D line drawings
- Created an algorithm in [C++](#) to extract control points from a line drawing and its disparity map (leveraging [OpenCV](#))

**SAFE SOFTWARE** 🌐 SOFTWARE ENGINEERING INTERN

Sept 2019 - Dec 2019 | Surrey, BC

- Extended a proprietary geometry validation algorithm to support the repair of degenerate [Triangle Strip](#) and [Triangle Fan](#) data ([C++](#))
- Rewrote the [Sector Generator](#) algorithm, adding support for overlapping sectors, increasing sector coverage accuracy by over **15%**
- Implemented polyline simplification using the Douglas-Peucker algorithm and extended it to interpolate by arc segments, decimating curves by an additional **10%**

**CTRL V** 🌐 SOFTWARE ENGINEERING INTERN

Jan 2019 - Apr 2019 | Waterloo, ON

- Built the [Account Ctrl](#) web app and a customer account API using Node, React, and PostgreSQL, allowing over **14,000** customers to view gameplay data and update waivers
- Developed a Unity program in [C#](#) using the Photon engine, enabling in-game voice communication between players

## PROJECTS

**QUICK CODE** 🌐

- Created a Web IDE which converts spoken pseudo code into JavaScript, leveraging [Microsoft Azure's](#) web and cognitive services
- Won the [Best Voice Biometrics Hack](#) and the Wolfram Award at nwHacks 2019

**ORB GAME** 🌐

- Created an orb launching game using the Gideros mobile environment ([Lua](#), [Box2D](#))