# Isaac **Watt**

 http://isaacwatt.me     IsaacWatt      isaacwatt@icloud.com

## EDUCATION

**UNIVERSITY OF WATERLOO** 🎓 SEPTEMBER 2016 - APRIL 2021

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 Subscription Platform (leveraging **Stripe**) to support Postmates Unlimited end to end, establishing ownership and abstraction over 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
- Wrote an internal payment processing Node package, leveraging the Elavon API, used to allow customers to sign up for VR tournaments (over **200** transactions)

## PROJECTS

**QUICK CODE** 

- Created a Web IDE which converted 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