

Isaac Watt

👤 <http://isaacwatt.me>

🔗 IsaacWatt

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EDUCATION

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

SKILLS

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

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

EXPERIENCE

POSTMATES 🌐 SOFTWARE ENGINEERING INTERN

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

- Enabled the collection of sales tax for [Postmates Unlimited](#), leveraging Stripe and Vertex Tax Engine, projected to save **\$1.86M** per annum
- Implemented 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 the paper [Generating Rough Stereoscopic 3D Line Drawings from 3D Images](#)
- 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 **14k** customers to view gameplay data and update waivers
- Wrote an internal payment processing Node package using the Elavon API, allowing customers to sign up for VR tournaments (over **200** transactions)

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 [Lua](#) with the Gideros mobile environment
- Used the [Box2D](#) engine to implement the physics and collision logic