

DAVID MCNAMEE

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Languages: Python, Javascript, C++, Go, Rust, Java, Kotlin, PHP, HCL, Starlark

Technologies: Node.js, React, React Native, Android, Webpack, Terraform, Kubernetes, Docker, Istio, Google Cloud, AWS, GraphQL, gRPC, Kafka, Redis, Spark, PostgreSQL, MongoDB, Bazel, Jenkins, etc.

EDUCATION

University of Waterloo, *Honours Computer Science (BCS)*

Class of 2023

Wilfrid Laurier University, *Honours Business Administration (BBA)*

- *Clubs/Teams:* SHAD Valley Waterloo alumnus, project lead at UW Coffee N' Code (cross-platform mobile dev), WLU McGill international Portfolio Challenge (**top 25 of 108 teams in 2019**), Watfly controls engineer (2018–2019)
- *Relevant Coursework:* CS451 (Data-Intensive Distributed Computing), CS456 (Computer Networks), CS341 (Algorithms), CS348 (Database Management), CS246 (Object Oriented Programming); mostly using C++

WORK EXPERIENCE

Wish, *Software Engineering Intern – Merchant Product Team*

Jan. 2021 - Apr. 2021

- Led the development of the Merchant Product V3 API following the OpenAPI specification, with expected future traffic of **2000 QPS**. Simultaneously refactored internals to speed up each query by 70% compared to the existing API while providing a simpler flow for users. Used by over 500,000 merchants worldwide.
- Rebuilt the Product CSV upload flow using the MapReduce programming model to improve merchant experience, increase branded product listings, and **decrease time to upload by 40%**.
- Collaborated extensively with product managers, data scientists and other team members, leading to nomination for co-op Student of the Year award.
- Used Python, Go, Typescript, Tornado, React, GraphQL, MongoDB, Grafana, Prometheus, Kubernetes, Docker, Jaeger, gRPC, HiveQL, AWS (S3, SQS), internal tools.

Lazer Technologies, *Full Stack Engineer (Intern & Part-time)*

Jan. 2020 - Nov. 2020

- *LoyaltyOne*: Led the engineering effort for the AirMiles Shopify App pilot, offering AirMiles Reward Miles for customers of 50 selected Shopify merchants for a 2-month period to test product-market fit for small businesses.
- *RBC Ventures*: Early contributor to RBC's Canada United web app that promotes local shops during the pandemic. Worked on the data model, data fetching framework and UI. **Reached 93% of Canadians with 875MM impressions**.
- *Cox Automotive*: Engineered a platform for car dealerships to sell insurance/protection products to customers using an intuitive interface and streamlining pre-sale customer information collection for Dealertrack API.
- Used Typescript, Node.js, React, Next.js, Webpack, Shopify API, Docker, PostgreSQL, MongoDB, Heroku, AWS (Cognito, Fargate, S3, SES), Google Cloud (Maps, Places, Geo-location).

Snap Commerce, *Software Engineering Intern – Connectivity Team*

May 2019 - Aug. 2019

- Extended booking and search microservices to enable easier connections to new suppliers, which cut connection building time from 3 weeks to 3 days and **reduced platform costs by 20%**.
- Deployed production-grade backend code to maintain existing backend systems serving deep-learning NLP models.
- Used Python, Flask, PostgreSQL, Redis, Protocol Buffers, AWS (EBS, RDS, Lambda, Cloudwatch), internal tools.

PROJECTS

HousingGPA (ongoing) 🌐 : Currently building a platform for students to rate and review housing options in proximity to their university or college. Using Go, Python, Hugging Face, Pyppeteer, Kubernetes, Bazel, Terraform, GKE.

groupShot 🌐 : Created a virtual photo booth app for video calls that feel like you're in the same room at the same time. **Winner of Hack The North 2020++**. Used WebRTC, Tensorflow.js, Human Segmentation, Google App Engine.

Copysmith 🌐 : Helped with launching the service for marketers to instantly generate advertisement text for Google/Facebook advertising campaigns, achieving #2 Product of the Day on Product Hunt; **later raising a \$10MM seed round as a result of successful launch**. Used OpenAI's GPT-3 API, Create-React-App, Firebase, Auth0.

Money Map 🌐 : Used TD DaVinci API and d3.js to map bank transaction density across a geographical region.

Minecraft Modding 🌐 : Various Minecraft mods, sites, and APIs that enable HUDs for real-time mini-game statistics, player report management & crowdsourcing, and other features. Used Java, Minecraft SDK, PHP, Gradle.