

Ishan Ghimire

Software Engineering, University of Waterloo

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Skills

Languages | JavaScript, Python, C++, Ruby, Go, C, Scala, SQL

Technologies | Node.js, Rails, React, GraphQL, Pyramid, Docker, PostgreSQL, MongoDB, Flutter, Apollo, Vue

Experience

Software Engineering Intern | Flight Deck - Royal Canadian Air Force

May 2020 - Sept. 2020

- Transformed the central interface used by **1600+ aircrew** daily to track missions, reducing data entry by **24% on 80k data points**, directly resulting in **5000 hours** and **\$300k saved** for the Air Force in 2 months
- Developed and shipped passport management application for **3100+ aircrew**, as a **Rails/React/GraphQL** microservice
- Spearheaded creation/adoption of **GraphQL API**, lowering load time significantly by eliminating waterfall requests
- Individually introduced HMR with **webpacker**, and restructured **Docker** workflow, **cutting startup time by 58%**

Software Engineering Intern | Tamvoes Health Inc.

Mar. 2020 - Aug. 2020

- Individually **developed entire premium/payment infrastructure** for user subscriptions, utilizing **webhooks** and **Stripe**
- Built **15+ REST APIs** in **Pyramid**, interacting with **Node.js** server, querying **PostgreSQL** database, and utilizing **Redis** to authenticate premium users, shipping numerous features
- Doubled registration rate on landing page by utilizing local storage to curate user experience and redesigning UI
- Added 52 countries** to potential client base by implementing internationalization site-wide with **i18n** and **jQuery**

Full Stack Developer | ETHGlobal

Dec. 2019 - Feb. 2020

- Developed a geocaching app gamifying city exploration for **800+ hackers** at **ETHDenver**, compensating users with tokens based on physical proximity to events, while recording transactions on blockchain
- Recruited by **ETHDenver** to develop said application after winning the **ETHWaterloo** hackathon with [similar project](#)
- Migrated prototype's **Flask API** to **Node.js/Express** and frontend to **React** to meet company request

Founder | Edmonds Engineered

Jun. 2018 - Jan. 2020

- Founded the NPO [edmondsengineered.com](#) to help develop self-starting attitudes in under-privileged community
- Created, organized and hosted 2 STEM Camps over 2 years for **150+ youth**
- Remotely led team of 5 developers in building an educational **Flutter**-based application

Projects

Concurrent TCP Load Balancer | Go2Balancer | Go, Net | 🔄

- Built a lightweight TCP load balancer in Go using goroutines to concurrently handle large workloads
- Implemented a novel algorithm to optimally choose backend server with least active connections

3D Graphics Engine | Clay | C++ | 🔄

- Built graphics engine without use of external libraries, utilizing linear algebra to simulate movement within 3D space
- Created **client-facing API** allowing manipulation of user-inputted objects, eventually projecting to 2D rasterizations

Social Platform for Music Lovers | UnderratedTunes | Node.js, Express, MongoDB, Bootstrap | 🔄

- Created [underratedtunes.com](#), a platform connecting **100+** music-lovers posting/discussing user-inputted songs
- Used Spotify API to promote least popular songs to top of page, and generate posts for **authenticated users**

COVID-19 Sentiment Visualization | C My Tweets | RU Hacks Top Project | Flask, Node.js, MongoDB | 🔄 🏆

- Developed application to identify statistically significant geographic trends in social media sentiment towards COVID-19
- Featured self-updating heat map of North America, and custom search feature to determine sentiment anywhere

Education

University of Waterloo | Bachelor of Software Engineering (B.SE)

2019 - Present

3.9 GPA, Dean's Honours List (2020), Software Engineering Entrance Scholarship