

# 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

### Production Engineering Intern | Shopify

Jan. 2021 - Apr. 2021

- Working in infrastructure on the Notification Platform team, serving **millions of merchants**

### 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**

### Founder | Edmonds Engineered

Jun. 2018 - Jan. 2020

- Founded the NPO [edmondsengineered.com](http://edmondsengineered.com) to help develop self-starting attitudes in under-privileged community
- Created, organized and hosted 2 STEM Camps over 2 years for **230+ youth**
- Remotely led team of 5 developers in building an educational **Flutter**-based application

## Projects

### Seasonal NFT Stock Marketplace | Pr!ce | Solidity, web3, Flask | ETHDenver Winner | 🏆🏆

- Created a marketplace issuing ERC-1155 shares of athletes, built on unique economic system powered by in-house Automated Market Maker where shareholders receive recurring dividends, and top shareholders receive NFTs
- Winner of Chainlink, IPFS, Unstoppable Domains, NuCypher bounties

### 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

### Decentralized Platform for Street Performers | ETHWaterloo Winner | MineBusker | Flask, web3 | 🏆

- Developed a geocaching app gamifying city exploration for citizens, while providing cryptocurrency revenue for buskers
- Recruited by ETHGlobal after winning, to integrate app into services for use at future Ethereum based events

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

- Created [underratedtunes.com](http://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**

## Education

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

2019 - Present

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