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 and shipped entire payment infrastructure** for user subscriptions, utilizing **webhooks**
- Built **15+ REST APIs** in Pyramid**,** interacting with **Node.js** server, **PostgreSQL** database, **Redis**, and Stripe
- **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

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

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

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

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

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**

Education

University of Waterloo | Bachelor of Software Engineering (B.SE)　　　　2019 – Present

Software Engineering Entrance Scholarship