

Vichara Nimnaka Wijetunga

✉ vnwijetu@uwaterloo.ca 🏠 nimwijetunga.github.io 🌐 github.com/nimwijetunga in linkedin.com/in/vichara-w

Programming Skills

Languages: Python, JavaScript, Java, SQL, C++, PHP

Technologies & Tools: Flask, NodeJS, PostgreSQL, Redis, Snowflake, Airflow, Matillion, EC2, S3, Docker

Experience

SnapTravel

Toronto, ON

Software Engineering Intern (medium.com/@nim.wijetunga)

January - April 2019

- Designed and Implemented three key **ETLs: Supplier Availability, Supply/Demand and Expired Rates**
 - Transformed **100M+ rows** of logs, pushing our Data Warehouse (**Snowflake**) size from **500GB to over 9TB**
 - Leveraged **Snowflake** to **cluster** columns with **low cardinality** improving **querying times by 90%**
 - Used Snowflake to **Bernoulli Sample** raw data, reducing ETL **runtimes by approximately 80%**
- Worked with the Engineering Manager to implement a **2 Factor Authentication (2FA)** Microservice
 - Implemented the **decorator design pattern** reducing duplicate code, when integrating auth with **20+ endpoints**
 - Experimented with Python-Flask **rate-limiting** to reduce the chance of a **TOTP brute force** attack by **92%**
- Increased **conversion** for the **Business Traveller** Program by **10%** after implementing its first perk: **Uber Vouchers**
 - Implemented a **Redis Caching System** (Voucher information), providing **double** the speed compared to **Postgres**
 - Worked across several backend microservices utilizing Google's **Protocol Buffers** for strongly typed communication
 - Integrated with the **Slack API** to notify our Ops team of Uber Voucher related issues, **reducing fiascos by 5%**

The Weather Network

Oakville, ON

Software Developer Intern

May - August 2018

- Implemented **AMP** (Google's Accelerated Mobile Pages), reducing forecast page load times by **1.5s** (mobile)
- Introduced data aliasing for **PHP** endpoints, reducing API request time by **0.5s** (client side)
- Implemented the **MVC** design pattern for backend API's, using the **CodeIgniter** (PHP) framework
- Developed test suites (employed **TDD**), using **Jasmine**, **Mocha** and **PHPUnit**, maintaining **80%** test coverage
- Built **RESTful API** endpoints for displaying news articles provided by the **CMS**

Projects

Housr 🌐

PennApps, Runner-Up: Best Campus Life Hack (github.com/nimwijetunga/housr)

- Web-app to rank/display nearby real-estate (for sale) based upon three criteria: distance, price, and physical appearance
- Tensorflow **CNN** (custom model) for image classification, **Node** Backend, **Google Cloud API** (maps)

CryptoConsensus 🌐

Hack the Valley, Runner-Up: Best use of Azure (github.com/nimwijetunga/Crypto-Consensus)

- Crawls Reddit for threads related to specific crypto-currencies and returns the public opinion of these coins
- Node** application for Reddit Crawling, **Express** Server, **Azure** sentiment analysis training

Education

University of Waterloo

Waterloo, ON

Bachelor of Software Engineering; CGPA: 3.86

Sep. 2017 – Present

Achievements & Extracurricular Activities

Coursera Princeton Algorithms (Part I & II) 🌐: Implemented complex **Algorithms** and **Data Structures**

Operations Executive (Hack the 6ix): Organizing **Toronto's Largest Summer Hackathon** (venue, swag, sponsorships)