Vichara Nimnaka Wijetunga

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Programming Skills

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

Technologies & Tools: Flask, NodeJS, Git, PostgreSQL, Redis, Snowflake, Airflow, Matillion, AWS, UNIX, Docker

Experience

SnapTravel Toronto, ON
Software Engineering Intern *January - April 2019*

- Designed and Implemented three key **ETLs**: **Supplier Availability**, **Supply/Demand** and **Expired Rates**
  * Through the extraction & transformation of raw request data these ETLs pushed our Data Warehouse size from **500GB to over 9TB**
  * Leveraged our Data Warehouse: **Snowflake** to **cluster** columns with **low cardinality** (in the resultant ETL tables) improving **querying times by 90%**
- Worked with the Engineering Manager to implement a **2 Factor Authentication** (2FA) Microservice
  * Implemented the **decorator design pattern** in Python reducing code duplication, when integrating authentication with **20 currently existing 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** for retrieval of Uber Voucher information, providing **double** the speed compared to a **Postgres alternative**
  * Worked across several backend microservices utilizing Google's **Protocol Buffers** for strongly typed communication
  * Created a **transactional** migration script for our "Bookings" **Postgres table** (containing > **billion rows**) to add columns related to Uber Perks

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
- Built **RESTful API** endpoints for displaying news articles provided by the **CMS**

Projects

Housr ⓞ
PennApps, Runner-Up: Best Campus Life Hack

- 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

- 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

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

2016 **SHAD** Carelton participant

Silver and **Bronze** Recipient of the **Duke of Edinburgh Award**