Rock Zhou

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Skills

Languages

JavaScript
Python
C/C++
Racket (Scheme)
MATLAB/Octave

Web Development

NodeJS + Express.js
React/Redux
Mocha/Chai
AngularJS
nginx
Flask

Data/Machine Learning

SQL (PostgreSQL)
MongoDB
NumPy, Pandas
PyTorch
scikit-learn
TensorFlow/Keras

DevOps

Git
Unix
Docker/Kubernetes
AWS S3, EBS, CloudFront
TravisCI
Jira
Google Cloud Platform

Education

University of Waterloo   2017-2022

Bachelor's of Computer Science
3.6 GPA

Interests

Rocket League
Mechanical Keyboards
Music
Fitness
Photography

Experience

Software Engineer
KitchenMate
May 2020 — Aug 2020
Remote

- **Increased projected revenue by 30%** by expanding customer base to hospitals, through scoping out and building a full-fledged concierge app experience
- Streamlined weekly inventory planning process by architecting and optimizing an inventory prediction model using TensorFlow/Keras
- Created an internal physical asset management tool using AngularJS, **streamlining operations processes and saving 10 total hours weekly**
- Lead entire application redesign and styleguide creation in Figma, working with marketing and business teams

Software Engineer
KitchenMate
Sep 2019 — Dec 2019
Toronto, ON

- **Increased weekly average users by 5%** by building a C2C2B referral program
- **Decreased weekly food waste by 10%** by creating a historical analysis tool in Jupyter Notebooks to evaluate inventory prediction scripts
- **Improved customer satisfaction** and **saved culinary team 10 hours/week** by analyzing meal success metrics and implementing a menu generation algorithm

Fullstack Developer
ConsenSys
Jan 2019 — Apr 2019
Remote

- **Reduced test execution time by 95%** by stubbing database calls in integration tests and increasing unit test coverage
- Improved frontend test coverage with Jest snapshot and pixel-match tests
- Built clean architecture endpoints over existing Node/Express API, allowing for framework-agnostic business logic and increasing developer efficiency

Frontend Developer
ConsenSys
May 2018 — Aug 2018
Waterloo, ON

- **Trimmed notification latency by 50%** by optimizing Redux/Stream.js integration

Projects

Doggin' Dog GAN   dogs.rockzhou.com
Aug 2019

- Trained and optimized a DCGAN on the Stanford Dog Image dataset, creating a CNN for generating, discriminating, and encoding images
- Created Flask API, nginx server, and React app with user feedback for online learning
- Deployed with Docker/docker-compose, AWS ElasticBeanstalk and CloudFront

FooDIY   github.com/rocky1638/fewd
Sep 2018

- Created a responsive web-app that allows users to post recipes, and conveniently view them while cooking
- Implemented a React/Redux frontend, Postgres/Express backend, AWS S3 image upload

Awards

EEG Seizure Classification   github.com/rocky1638/eeg-seizure-detection
May 2020

- **Classified seizures through EEG frequency data**, using transfer learning with ResNet for the Neureka 2020 competition
- Preprocessed data using Numpy and Pytorch, using STFT (Short Term Fourier Transform) to extract frequencies and amplitudes, creating freq/time heatmap for CNN input
- **Achieved classification accuracy of 70%, placing 4th among all participants**