

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
Vue

Data/Machine Learning

PostgreSQL
MongoDB
NumPy, Pandas
PyTorch
TensorFlow
scikit-learn

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
3.5 GPA

Interests

Rocket League
Mechanical Keyboards
Music
Fitness

Experience

Software Engineer

Sep 2019 — Present
Toronto, ON

KitchenMate

- Built a referral program, increasing size of user base by over 5% in one month
- Decreased weekly food waste by 10% by creating a historical analysis tool in Jupyter Notebooks to evaluate inventory prediction scripts
- Made Python script to generate weekly menus, meeting requirements for variety and diet and reducing user complaints

Fullstack Developer

Jan 2019 — Apr 2019
Remote

ConsenSys

- 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
- Lowered development time by 30% by converting existing REST API to GraphQL
- Built clean architecture endpoints over existing Node/Express API, allowing for framework-agnostic business logic and increasing developer efficiency

Frontend Developer

May 2018 — Aug 2018
Waterloo, ON

ConsenSys

- Built out application for tokenizing real estate on Ethereum using Web3.js
- Trimmed notification latency by 50% by optimizing Redux/Stream.js integration
- Produced extensible React components such as dropdown menus and a ChartJS wrapper

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

Movie Review Sentiment Analyzer mra.rockzhou.com

Feb 2019

- Trained a logistic regression classifier with feature-vectorized movie reviews from the IMDB Movie Review Dataset, using scikit-learn and NumPy, achieving sentiment classification accuracy >95%

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

Music Genre Classifier github.com/rocky1638/music-genre-analysis

Apr 2019

- Designed and trained a fully-connected neural network using TensorFlow/Keras to classify the genre of any MP3 song
- Optimized hyperparameters such as learning rate, momentum, and number of neurons using GridSearchCV
- Extracted and constructed input feature vectors from music metadata using Librosa

Sorcery a card game

Dec 2019

- Created a card game inspired by Hearthstone and Magic in C++
- Made use of object oriented decorator and factory patterns to optimize code reuse