Radhika Ahuja

ahujaradhika18@gmail.com | linkedin.com/in/resume | 310-954-7895 | github.com/resume

Skills

Languages: Python, C++, C, Golang, SQL, JavaScript, HTML5, CSS
Tools & Technologies: Linux, Git, Bash, Shell scripting, Vim, QGIS, Flask, Jekyll, NLTK, Matplotlib, MySQL, PostgreSQL

Experience

Associate Software Engineer, Moody's Analytics — October 2020 – Present

- Building and maintaining a REST API written in Flask, servicing Kubernetes to clients.
- Mounted AWS FSx for Lustre onto Kubernetes to allow running data-heavy financial models through the API among other feature implementations and bug fixes.

Developer, Daily Bruin - The Stack — April 2019 - June 2020

- Crafted stories related to student-related issues and used data to offer analysis and visualizations.
- Built a model visualizing the spread of coronavirus for reopening UCLA which became the most read Stack article to date and the most read Daily Bruin article that quarter reaching about 50K views in the first month.
- Created comparison of Election 2020 Primary candidates' personality by scraping the candidates' tweets, analyzing common keywords using NLP libraries and IBM Watson's Personality Insights API.
- Implemented several tools, including automated Git workflows, 4 template React components for common uses, and process documentation that improved the organization's efficiency.
- Developed interactive choropleth maps using QGIS software, Javascript libraries like Leaflet, and other interactive charts using ChartJS.

Software Engineering Intern, WeWork — June 2019 - August 2019

- Devised an algorithm in Go that compares the spatial geometry of rooms to maintain a stable database between new updates of data.
- Optimized the algorithm using Goroutines after tracing using Jaeger to reduce match time per room, which brought down average time from 60ms to 30ms (50% reduction).
- Fine-tuned a threshold to give rooms a more human definition, i.e., included cases with slight shifts in walls, beams or room placement.

Selected Projects

NYC Taxi-Cab Ride Fare Predictions (Tensorflow)

- Implemented 4 versions of a basic Neural Network to predict cab fares for every time bracket of the day with 4 different data cleaning methods, resulting in the best output of a Root Mean Squared Error of 2.7 among the 4, placing it in the top 5 Kaggle submissions among almost 1500 submissions.

Squad (Best Use of HERE API, Spectra Hackathon) (Python, JavaScript, jQuery, Flask)

- Developed a web app that connects you with registered callers or police stations nearby in case of an emergency or for support if you are walking alone
- Captured location data and then routed phone calls using Twilio's API to find a closest match using HERE API with backend logic implemented in Python and deployed locally using Flask.

Elmobot (Python)

- Developed a chatbot that matches you to the movie character you are most like using IBM Watson's Assistant API, Personality Insights API and IBM Cloudant in Python
- Scraped thousands of movie scripts and separated each character's dialogue to feed to the Personality Insights API. Similarly, generated Personality Insights using user conversation with the chatbot.
- Wrote a least squares algorithm to match the movie personality user is most similar to.

Optimization Library (Python, Matlab)

- Developed a simple optimization library in Python to implement several optimization algorithms like gradient descent, Newton's method, and conjugate-gradient methods.

Education

University of California, Los Angeles B.Sc. Math of Computation, — September 2020
Coursework: Data Structures, Algorithms, Operating Systems, Database Systems, Probability Theory, Machine Learning, Optimization, Linear Algebra, Mathematical Modeling