Raguvir Kunani

rkunani@berkeley.edu | linkedin.com/in/rkunani | (661) 903-2621

Education

UC Berkeley

- M.S. Electrical Engineering and Computer Science, Class of 2022 (GPA: 4.0, emphasis in Machine Learning)
- B.S. Electrical Engineering and Computer Science, Class of 2021
- **Relevant Coursework:** Machine Learning (A+), Operating Systems, Databases, Back-End Web Architecture, Internet Architecture/Protocols, Data Science

Experience

Data Engineer Intern | *Bank of the West* *Jun - Aug 2020*

Python, SQL, scikit-learn, pandas

- Implemented a tool in Python that speeds up EDW table partition maintenance queries from hours to seconds
- Developed machine learning algorithms for customer segmentation to generate actionable leads for sales team
- Built a synthetic data generation pipeline that uses deep learning; my pipeline was put to use by multiple teams to generate data for machine learning projects and other projects involving sensitive data

Data Science Lecturer + TA | *UC Berkeley* *Jun 2019 - Aug 2021*

- Instructed the main upper-division data science course at UC Berkeley during Summer 2021 with 350+ students enrolled
- Designed and managed grading, version control, and grade reporting software systems supporting 1000+ students
- Increased retention of TA assistants from 0 to 95% by spearheading a mentoring and feedback system

Machine Learning Research Intern | *East Bay Community Energy* *Feb - May 2020*

Python, scikit-learn, pandas

- Improved the company's energy forecasting model by an estimated 6 points (about $3.5 million in annual savings) by implementing machine learning models (e.g. random forest, LSTM) to predict energy usage of 550,000+ customers
- Presented my work to VP of Technology and wrote a concise paper summarizing my approaches and results

Projects

Pintos Operating System

C, x86 Assembly

- Implemented 5000+ lines of code adding core functionality for an operating system, e.g. file system and scheduling
- Analyzed several possible implementations with a team of 4 and wrote design documents to communicate our approach

BearTrack (code)

Typescript, Node.js, Angular, Express, Flask, MongoDB, AWS

- Built a full-stack web app enabling Berkeley students to get a real-time text updates on the status of courses they like
- Taught myself MEAN stack basics in under 2 weeks to develop and deploy the app and NoSQL database in the cloud
- Helped over 40 students find a spot in a class they were interested in and could not get into on their first attempt

Deep Neural Network Prediction Serving API (code)

Python, PyTorch, Flask

- Trained a BERT model to predict Yelp ratings to within 0.2 stars, significantly outperforming baseline approaches
- Deployed the model on a cloud CPU as a REST API by reducing latency 100x using model distillation and quantization

BearMaps

Java, XML

- Built a Google Maps-like web app which finds the shortest route between 2 locations and displays the route on a map
- Implemented the A* path-finding algorithm and developed an algorithm to support zooming in/out on the map