JAY MISHRA

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EDUCATION

UCLA
June 2021

B.S. Computer Science | GPA: 3.60 | Dean's Honor List

- Coursework: Data Structures, Algorithms, Machine Learning, Deep Learning, Database Systems, Computer Vision
- Activities and Societies: Upsilon Pi Epsilon Computer Science Honor Society, Sigma Eta Pi Entrepreneurship Fraternity

EMPLOYMENT

Incoming Software Engineering Intern
Confluent — June 2020 to Sept. 2020

- Helping build Confluent Platform, the complete real-time event streaming platform built to run at scale on Apache Kafka

Security Engineer Intern
Facebook — June 2019 to Sept. 2019

- Built internal tool to least-privilege and simplify IAM permission policies for Facebook's internal AWS accounts
- Used the AWS Python SDK to fetch current IAM permissions granted to users, roles, and groups in given AWS accounts
- Queried Hive tables of AWS Cloudtrail Event logs using Presto to determine which IAM permissions are actually being used

Software Engineering Intern
Zededa — June 2018 to Sept. 2018

- Wrote client-server Go application to verify functionality of applications deployed on devices using Zededa's IoT platform
- Built the Actions and Selectors for the application UI in React so that customers could write tests for deployed applications
- Developed an EOS block producer configuration using Docker Compose and EOSIO to be deployed on Zededa's platform

PROJECTS

ResNet Image Classifier
Nov. 2019

- Built a Deep Convolutional Neural Network with residual blocks to classify thousands of images from the CIFAR 10 dataset
- Implemented Identity and Convolutional residual blocks using 2D convolution, batch normalization, and activation functions
- Processed images using multiple Identity and Convolutional blocks of increasing sizes and fed results into a Keras ResNet
- Trained ResNet for 50 epochs on Google Colab GPUs and correctly classified 71% of 10,000-image validation set

OnCampus
Jan. 2019 to Dec. 2019

- OnCampus helps thousands of UCLA students find clubs and student organizations matching their interests
- Built the website using Django for the backend, PostgreSQL for the club and user databases, and Caddy for the web server
- Deployed the entire application on AWS EC2 using Docker Compose to containerize each service

Reddit Sentiment Analysis
May 2019

- Analyzed thousands of comments from r/politics to predict positive or negative bias towards Democrats and Republicans
- Transformed comment data using Python and Apache Spark for use by a logistic regression machine learning classifier
- Used k-fold cross-validation to train a Spark ML model that used the classifier to predict the bias of the rest of the data

Glia
Jan. 2019 to Mar. 2019

- Developed a gratitude journal that has users write down one thing they're grateful for and track their mood every day
- Used React and Redux to create the web app's UI and authenticate users so they can view their previous entries
- Built the backend using Node and Express to grant authentication tokens and store journal entries and mood emojis

SKILLS/INTERESTS

Languages: Python, SQL, Go, C++, Bash, Java, Javascript, HTML/CSS

Frameworks/Technologies: Docker, Django, PySpark, PostgreSQL, Scikit-Learn, Keras, Presto, React

Interests: Skateboarding, Biking, Basketball, Weightlifiting, Slacklining, Reading, Traveling, Sneakers, Anime, Meditation