JAY MISHRA

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EDUCATION

UCLA
June 2021

B.S. Computer Science | GPA: 3.61 | Dean's Honor List
- Relevant Coursework: Data Structures, Algorithms, Databases, Distributed Systems, Computer Graphics
- Activities and Societies: Upsilon Pi Epsilon Computer Science Honor Society, Sigma Eta Pi Entrepreneurship Fraternity, DevX

EMPLOYMENT

Security Engineer Intern
Facebook
June 2019 to Sept. 2019
- Building internal tool to least-privilege and simplify IAM permission policies for AWS accounts being used internally at Facebook
- Using the AWS Python SDK Boto 3 to fetch current IAM permissions granted to users, roles, and groups in given AWS accounts
- Querying Hive tables of AWS Cloudtrail Event logs using Presto to determine which IAM permissions are actually being used
- Integrating tooling with Phabricator to periodically propose privilege reductions to Thrift structures representing IAM policies

Software Engineering Intern
Zededa
June 2018 to Sept. 2018
- Wrote a client-server application in Go to verify that applications deployed on devices using Zededa's IoT platform are working
- Built the Actions and Selectors for the application UI in React so that customers could write tests for their deployed applications
- Developed an EOS block producer configuration using Docker Compose and EOSIO to be deployed on Zededa's platform

Full Stack Web Developer
UCLA Athletics Hall of Fame
Apr. 2018 to Apr. 2019
- Added new athletes and teams to the Hall of Fame database and updated a Swift application to show this information to visitors
- Built and maintained a live UCLA athletics social media feed in Javascript and Python that used the Twitter and Instagram APIs
- Maintained Hall of Fame's Spirit Theater by wiring BrightSign Media Players and booting them with highlight videos of athletes

PROJECTS

OnCampus
Jan. 2019 to Current
- OnCampus helps thousands of new UCLA students find clubs and student organizations that match their interests
- Built the web server backend using the Python framework Django and the club and user databases using PostgreSQL
- Deployed the entire application on AWS EC2 using Docker Compose to containerize each service and Caddy as the web server

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
- Graphed results by region, date, and submission/comment score to determine whether there were patterns in comment bias

Pangeo
May 2019
- Developed a decentralized Progressive Web App using Blockstack that stores users' location history on the blockchain
- Used the HTML Geolocation and Foursquare APIs to determine a user's location and any points of interest they visited
- Determined best overall hack by a judging panel of alumni designers and engineers at the UCLA internal hackathon Yeetcode

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, Presto, React, Redux

Interests: Skateboarding, Biking, Basketball, Weightlifting, Slacklining, Reading, Traveling, Sneakers, Manga, Meditation