

# JAY MISHRA

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## EDUCATION

**UCLA** June 2021  
B.S. Computer Science (GPA: 3.61)  
• Honors: Dean's Honor List, Upsilon Pi Epsilon Computer Science Honor Society  
• Relevant Coursework: Data Structures, Algorithms, Databases, Distributed Systems, Computer Graphics

## EMPLOYMENT

**Security Engineer Intern** June 2019 to Sept. 2019  
Facebook  
• Building internal tool to least-privilege and simplify IAM permission policies for AWS accounts being used by Facebook employees  
• 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

**Software Engineering Intern** June 2018 to Sept. 2018  
Zededa  
• 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** Apr. 2018 to Apr. 2019  
UCLA Athletics Hall of Fame  
• 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

## PROJECTS

**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 DataFrames for use by a logistic regression machine learning classifier  
• Used k-fold cross-validation to train a Spark ML model that predicted the bias of the rest of the data, and graphed results by region

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

## SKILLS/INTERESTS

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

**Frameworks/Technologies:** Docker, Django, PySpark, PostgreSQL, Presto, React, Redux

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

## ACTIVITIES

**Tutoring Chair** June 2019 to Current  
Upsilon Pi Epsilon  
• Organizes and leads midterm and final review sessions for Computer Science courses to help prepare students for upcoming exams  
• Helps students with homework and programming assignments to help solidify Computer Science fundamentals throughout the quarter

**Backend Developer** Jan. 2019 to Current  
DevX  
• Developing OnCampus, a web app that helps 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