Anish Devineni

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EDUCATION

University of California, San Diego

B.S. in Mathematics-Computer Science – GPA: 3.65/4.0

EXPERIENCE

Software Engineering Intern

CBRE Group Inc.

- Worked on the Valuation & Advisory Services Team to assist in building a comprehensive commercial real-estate valuation platform for appraisers, sellers, and bidders
- Migrated billing data on backend PostgreSQL databases, and optimized REST API endpoints for document uploads with Java, while providing front-end development fixes with Vue.js
- Delivered changes through CI/CD pipeline organized with Agile methodology and domain driven design
- Increased code coverage of API's by 50%, helped migrate over 450,000 entities with AWS EC2, and optimized upload API endpoints to work 30% faster with Spring JPA bulk upload framework

Undergraduate Researcher

Ujima Security & Privacy Research Lab @ UC San Diego

- Researched common critical vulnerabilities in popular loan banking Android apps in countries of the global south
- Wrote python scripts to reverse engineer and mass analyze security threats in APK files of these loan apps
- Worked with Python, Git, Mallodroid and Docker for research, and co-authored publication on the project

Mathematical Modelling Engineer

Compass Institution

- Worked to track, analyze, and solve specific problems focused on the global scale through mathematical modelling
- Constructed a long short-term memory (LSTM) recurrent neural network to predict food insecurity by forecasting rough rice futures in Asia
- Scraped data related to weather and financial history of rice, and clustered data in specific regions to train models
- Built linear regression, time-series forecasting, and moving exponential averages models to compare results

Projects

Basketball Shot Detection | OpenCV, Python, NumPy, PyTorch, TensorFlow

- Designed and trained a Faster R-CNN real-time object detection model to detect basketballs and rims
- Trained the model with an average class detection accuracy of 96.25% and an inference time of ~ 20 ms per frame
- Utilized a heuristic-based shot detection approach to determine a make or miss, which yielded 90% accuracy and an F-1 score of 89.5%
- Displayed makes and misses with predicted labels and corresponding confidence levels of model in real time video

Fantasy Football Wizard | *Python, R, NumPy, pandas, JupyterLab*

- Researched and built long short-term memory recurrent neural network to track and statistically predict NFL players' fantasy football production for a given season in PPR format
- Created web scraping tool in R and utilized nflreadr library to gather NFL data and advanced statistics, including player performance, injury, and strength of schedule data from the past 6 seasons from several sources

Spotify Higher/Lower | React, JavaScript, Flask, MongoDB, HTML/CSS, Spotify API May 2022 – March 2023

- Utilized the Spotify API and the React JS framework to develop a web application game that challenges you to guess which of your personal favorite songs or albums is more popular
- Implemented OAuth2 authentication with Flask to allow users to log in using their Spotify credentials and use their personal streaming information
- Stored data in MongoDB server, including global top scores to keep relevant leader board information
- Handled traffic and data storage of 100+ players and over 1000 games played

TECHNICAL SKILLS

Languages: Java, Python, C, C++, SQL (Postgres), JavaScript, HTML/CSS, R, ARM Frameworks: React, Node.js, Vue,js, Spring, Flask, JUnit, FastAPI Developer Tools: Git, Docker, Amazon Web Services, VS Code, IntelliJ, Eclipse, Excel, Postman, Linux Libraries: pandas, NumPy, Matplotlib, OpenCV, PyTorch, TensorFlow

June 2023 – August 2023

Aug. 2021 - May 2025

Dallas. TX

La Jolla, CA

March 2022 – Present

June 2023 – July 2023

May 2023 – Present

June 2022 – Present

San Diego, CA

La Jolla. CA