Aneesh Saripalli

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Education

Honors B.S. in Computer Science, Expected Graduation 2021
The University of Texas at Dallas
GPA: 3.95/4.0 - Dean's List Fall 2017, Spring 2018

Languages & Tools

- Java, C++, Python, React, TypeScript, Node.js, Flutter, React Native, Git, ElasticSearch, Firestore, DynamoDB, S3

Professional Experience

Amazon, AWS Organizations, Software Development Engineering Intern   May – Aug '19
- Developed a service for AWS Organizations that pulls from internal data services and allows for data querying
- Wrote a service design document and tracked project progress during biweekly team sprint planning
- Leveraged AWS ElasticSearch for high scalability and partial and full text matching against document fields
- Integrated JUnit and Mockito for class-comprehensive unit testing for expected behavior and input resilience
- Deployed the service to the beta stack and demoed the service to my organization

Texas Analog Center of Excellence, Machine Learning Research Intern   January - May '19
- Prevent camera data loss by creating a Python script to alert on USB camera disconnection
- Reduced runtimes by 6 hours by altering the C++ image processing routine, allowing parallelization
- Developed a camera calibration algorithm to transform between coordinate frames within <3% error
- Used OpenCV and AprilTag (QR code-like) investigate the relationship between head-pose and driver gaze
- Unified 8 Python and C++ processes into in a single multithreaded data pipeline, increasing usability

Intel Corporation, **Intel Sports**, Undergraduate Technical Intern   June '18 – May '19
- Designed an interactive Java GUI to track players and visualize game movement to analyze patterns in CSV data
- Developed a Python framework to optimize pixel quality in stadium CAD models using Maya's Python API
- Realized 7x speedups in the optimization framework by implementing a simple data caching mechanism
- Wrote a 4D linear algebra library to simulate view model transforms and camera projections
- Integrated Google Test to manage a unit test suite focused on critical functionality
- Reduced optimization runtimes by 400x after migrating framework to C++11 (191 to .387 seconds)

Valencian Digital, Backend Architect & Developer   May – October '18
- Designed the Node.js architecture, NoSQL Firestore database structure, and API communication schema
- Wrote proxy interfaces for the Firestore database and the Ethereum blockchain network (Web3.js)
- Developed event listeners to trigger event-based business logic like rewards handling, blockchain tournament creation and termination, fantasy performance evaluation, and database CRUD
- Unit tested critical functions by determining server behavior in test and dev environments prior to production
- Publicly hosted at https://www.rotohive.com

Toyota, Software Developer Intern   August '19 – Present
- Working in a multidisciplinary team to design a full stack blockchain solution for Toyota's supply chain
- Developing in an Agile environment on 16-day pre-designated sprints

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Software Projects

[American Sign Language to English Translation](#)   January – April '18

Computer Vision & Machine Learning Research
- Worked with a team of 5 to develop a full-stack app that extracts and translates American Sign Language symbols to English alphabet from a webcam using Python with OpenCV and Keras
- Explored and evaluated different features extraction methods including real-time contour segmentation and foreground/background recognition using OpenCV
- Designed the final project architecture and data flow between the convolutional neural networks and the Django/Flask front-end webpage

[Engineering Projects in Community Service](#)   January – October '18

Project Leader, React Native Developer, Backend & Database Architect
- Designed and implemented the first draft of a cross-platform mobile application to reduce wait times and streamline the appointment registration process for a 501(c)(3) using React-Native, MySQL, and PHP
- Wrote a PHP/MySQL backend server to allow users to sign up for appointments and preventing double-booking

Activities & Clubs

Dallas Blockchain Club Vice President: Designed flyers for club events. Communicated with other clubs including the entrepreneurship club and ACM to host joint technology events. Presented a workshop on using the Web3 - Python interface.

HackUTD Industry Coordinator: Actively communicated with industry contacts to raise $5,000 for HackUTD Spring '19. Coordinated food distribution and judging for over 600 hackers.

AI Society Technology Coordinator: Presented workshop on using SciKit Learn for logistic regression, decision trees, and KNNs, available on GitHub.

Honors

Erik Jonsson Engineering Scholarship: Awarded twice after a holistic review consideration including academic merit

Mustang Technology Scholarship: Award due to academic merit

Phi Kappa Phi Honors Society: Maintained a GPA in the top 10 percentile among those with junior or senior standing

Computing Scholars Honors Society: Selective honors that only accepts 30 CS students in each year

Awards

UIL Regionals Qualifiers: Placed in the top 15 in the region in Computer Science, Mental Math, and Math after placing 2nd, 2nd, and 3rd, respectively, in districts

1st place at UTD Hacks for Humanity: Designed a "Yelp for accessibility" app using React Native that allows people to rate locations based their accommodation to those with disabilities. Uses Google Maps API to display the map and NoSQL Google Firebase to store the review data.

2nd place at T-Mobile Hacktober: Developed a novel application that summarizes conversations between service agents and customers using Google NLP and IBM Bluemix. Prevents the need for the customer to repeat themselves between representatives by storing and retrieving relevant information from previous interactions.

3rd place at Johns Hopkins' HopHacks: Built a social good app using React Native that allows communities to help themselves after natural disasters by allowing those less affected to offer available goods and donations, while allowing those more affected by the disaster to easily search for donations via keywords.

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