**­­Edu­­­­cation­­­­**

**Honors B.S. in Computer Science**, Expected Graduation 2020

The University of Texas at Dallas

**GPA: 3.95/4.0** ­- Dean’s List Fall 2017, Spring 2018

**Languages & Tools**

* Java (6 years): 2D game development, threading, network sockets, graphics, text manipulation, OOP
* C++ (2 years): OOP, lambda expressions, pointers/references, RAII, STL
* Python (2 years): OpenCV, CSV data processing/manipulation
* Node.js (1 year): Express framework, asset request routing, HTTP requests, API design, Web3.js
* Git (3 years): used for 10+ projects, branching, merging, reverting, GitHub/GitLab

**Professional Experience**

**Intel Corporation**, Undergraduate Technical Intern June ‘18 – May ‘19

* Wrote an automated processing script to analyze 200,000 lines of CSV and HTML data file
* Designed an interactive Java GUI to track players and visualize game movement to analyze patterns in CSV data
* Compared academic research papers on camera positional optimization to choose the best-fit algorithms
* Designed 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 and tested a lightweight 4D linear algebra library to simulate view model transforms and camera projections
* Decreased optimization runtimes by 400x after rewriting optimization in C++11 (191 to .387 seconds)
* Utilized Google GTest to create a test suite mainly for focused on unit, progressive, and regressive testing
* Removed 50% of a heavy function call by implementing a data cache to prevent redundant computation
* Continuously refactored code to prevent future technical debt and retain code flexibility

**Texas Analog Center of Excellence**, Machine Learning Research Intern January - May ‘19

* Created and tested a Python script to alert researchers of USB camera disconnection by sounding an alarm and automatically reconnecting when possible, saving hours of driving data
* Cleaned multiple gigabytes of raw video data, matching video frames to driver gazes at various markers and providing accurate training data for the machine learning model
* Allowed parallelization of C++ image processing software by providing a variable output data file
* Worked with Texas Instruments engineers to integrate TI hardware to in the camera sensor data pipeline
* Designed Python scripts to automatically read, transform, and write CSV data as part of a data pipeline
* Developed a camera calibration algorithm to transform data to single reference coordinate frame with <3% error
* Used OpenCV and AprilTag (QR code-like) investigate the relationship between head-pose and driver gaze
* Built and tested a data pipeline combining all Python / C++ processing in a single shell script

**Valencian Digital**, Backend Architect & DeveloperMay – October ‘18

* Designed the Node.js server architecture, NoSQL Firestore database structure, and client-server communication schema for RotoHive, a crypto-based fantasy football website hosted on Google Cloud Platform
* Wrote abstraction layers to easily manage asynchronous calls with the Firestore database and Ethereum blockchain
* Designed and tested event listeners to drive autonomous server functions like rewards handling, blockchain tournament creation and termination, fantasy performance evaluation, and database state management
* Unit tested critical functions by setting up a test environment with a test database and running the server locally
* Currently handling dozens of people and hundreds of ERC20 token transactions weekly at <https://www.rotohive.com>

**Software Projects**

[**American Sign Language to English Translation**](https://github.com/Abhishaike/ASL_Translation) January – April ‘18

*Computer Vision & Machine Learning Research*

* Collaborated in a team of 5 to develop a full-stack application that analyzes a webcam stream to extract American Sign Language symbols and translate them to the English alphabet using Python with OpenCV and Keras
* Tested and evaluated different features extraction pathways 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**](https://github.com/AneeshSaripalli/EPICS-2100-Project) 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 an elegant social good app using React Native that allows people to rate locations based on accessibility to those with disabilities – comparable to a Yelp but specifically for accessibility.Uses Google Maps API to display the map and Google Firebase to store the reviews and ratings.

2nd place at T-Mobile Hacktober:Developed a novel application that automatically summarizes conversations between customer service agents and customers using Google NLP and IBM Bluemix and stores them in Google Firebase**.** Integrated retrieval functionality that allows any agents to retrieve these summaries when the customer calls again, preventing the need for the customer to repeat themselves for every representative.

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.