**­­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, memory cache hits/misses
* Python (2 years): scripting, OpenCV, Keras, Tensorflow
* 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 – Present

* Wrote an automated script to clean, parse, and associate 200,000 lines of CSV data with features in a HTML data file
* Built various Java, R, and Python heatmap visualizations for the position data read from the CSV file
* Designed a Python framework to optimize camera rotation angles for pixel quality in Maya CAD models
* Realized 7x speedups in the optimization framework by implementing a simple data caching mechanism to prevent redundant matrix computation
* Wrote and tested a lightweight 4D linear algebra library to simulate view model transforms and camera projections
* Massively cut optimization runtimes by a factor of 400 by designing a novel, standalone C++ command line executable to replace an existing Maya plugin (from 191 to .387 seconds)
* Integrated Google GTest to create a unit-test suite to verify there were no breaking changes during merges
* Removed 50% of objective function calls by implementing a data cache vector to prevent redundant computation
* Continually communicated with the relevant Intel teams to clarify project asks and specifications

**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 network by wrapping Web3.js with higher level JavaScript promises
* 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 on a weekly basis
* Publicly hosted at <https://www.rotohive.com>

**Texas Analog Center of Excellence**, Machine Learning Research Intern January ’18 - Present

* Wrote a Python script to alert researchers by sounding and alarm and attempt reconnection when the time-of-flight camera disconnected, preventing the loss of hours of 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
* Worked with Texas Instruments engineers to integrate TI hardware to in the camera sensor data pipeline
* Utilizing OpenCV and AprilTag markers to homogenous matrix mappings between road-facing cameras and drivers’ field-of-view

**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 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.