# ­­Edu­­­­cation­­­­

**Honors B.S. in Computer Science**, The University of Texas at Dallas

Expected Graduation **December 2020**, **GPA: 3.95/4.0** ­- Dean’s List Fall 2017, Spring 2018, Spring 2019

# ­­Languages and Tools­­­­

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

# Professional Experience

## **Toyota**, Software Developer August ’19 – Present

* Working in a multidisciplinary team to design a blockchain solution for Toyota’s supply chain tracking system
* Built a Node.js + TypeScript server using Express to handle CRUD, smart contract interfacing, and business logic
* Collaborated with the front-end team to set up API GET and POST endpoints for workflow management
* Employed CosmsoDB to facilitate quick schema changes and database redesigns
* Leveraged TypeScript strong typing by integrating inversify.js to streamline dependency injection
* Set up the Mocha testing framework with mocking to unit test backend express routes and data processing

## **Amazon**, AWS Organizations, Software Development Engineer Intern May – August ‘19

* Wrote a service design document and tracked project progress during biweekly team sprint planning
* Developed a service for AWS Organizations that pulls from internal data services and allows for data querying
* Designed an SQS pub/sub notification poll daemon to process and update the ElasticSearch document store
* Leveraged 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

## **Intel Corporation**, 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 Developer May – October ‘18

* Designed the Node.js architecture, NoSQL Firestore database structure, and API communication schema
* Wrote listeners to automate business logic like rewards handling, user performance, and database CRUD

## **Texas Analog Center of Excellence**, ML Research Intern January - May ‘19

* Developed a 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
* 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

# Activities & Clubs

* Dallas Blockchain Club Vice President: Organizing a mentorship program directed towards teaching the ideas required to manage and create a tech-product based startup. Hosting weekly technical interview preparation classes. Promoted technical club events including our workshops and hackathons.
* ACM Labs Director**:** Built a website using React, Node, & Typescript on AWS DynamoDB and S3 to help students get their resume to recruiters. Currently hosting resumes for over 50 students.