

## Education

### M.S. in Computer Science

University of Texas at Austin (May 2023) GPA: 3.78/4.0

### B.S. in Computer Engineering

Virginia Commonwealth University (May 2017)

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## Professional Experience

### Intel Corporation | Graduate Intern | May 2021 – August 2021

- Used machine learning techniques to make predictions to determine optimal configurations for a given simulation model system.
- Worked with the Mathematical Modeling team in the Data Platforms group to improve their data processing and visualization tools that is used to gain insights on vast amounts of data to render smart solutions for Intel Customers.

### Dell | Software Engineer II | June 2017 – May 2021

- **Microservices (backend development)**
    - Worked to migrate an existing service as a reactive microservice, built as a non-blocking and asynchronous solution resulting in huge performance enhancements in several areas including memory footprint, CPU load, thread utilization, data loss, and responsiveness.
  - **Department of Defense (backend development)**
    - Developed a solution in response to a request by the Department of the Defense (DOD) for account management in the application. As a result, it provided improvements to user experience in for session management, account configuration, session sync between multiple connected consoles in a network
    - Designed and developed several server-side RESTful API's using the Spring Framework in Java for factory settings on the management console.
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## Research Experience

### Graduate Researcher | AI in Health Lab @ University of Texas at Austin | Summer 2022

- Graduate student in Computer Science working with the AI in Health Lab @ the University of Texas at Austin to develop and apply machine learning techniques to solve medical problems. Advised by Professor Ying Ding.

### Undergraduate Researcher | Collaborative UAV Research Group

- **GCS Dashboard | Jan - May 2017**
  - Dashboard android application, which provides GCS operator with real-time attributes of UAV through a TCP connection
  - Expanded application by developing maps display using Mapbox API's and integrating with GCS Dashboard • Maps provide real-time tracking of UAV during flight; maps of selected regions are cached and rendered for offline use
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## Skills, Frameworks, & Languages:

- Java, Python, C++/C, Swift, JavaScript, MATLAB

### Frameworks & Libraries:

- Pytorch, NumPy, Pandas, AWS, Git, Anaconda, Google Colab, Jupyter, Spring Framework, Xcode
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## Selected Projects

### Robot Learning Final Project | The University of Texas at Austin | Aug 2021 – Dec 2021

#### Multimodal End to End Autonomous Driving via Conditional Imitation Learning

- Explored the impact of adding and removing modalities with respect to early multimodal fusion paradigms in the context of conditional imitation learning
- The goal was to find the impact of optical flow as a modality in relation to other modalities such as RGB images and lidar.
- Our model consists of two parts, a feature encoder, and an autoregressive waypoint predictor
  - We utilize the CARLA simulator which provides multiple modalities, and we then create our own optical flow images by using a lightweight version of the current state-of-the-art deep learning approach for optical flow