Trent Haines

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Education

University of Texas at Dallas **Expected Graduation May 2023**
Master of Science in Computer Science *Richardson, Texas*

- 3.9 GPA
- Intelligent Systems Track

University of Texas at Dallas **Graduated May 2022**
Bachelor of Science in Computer Science *Richardson, Texas*

- 3.93 GPA
- Computing Scholar's Honors
- Magna Cum Laude

Relevant Coursework

- Graduate Algorithm Analysis and Data Structures
- Graduate Database Systems
- Graduate Artificial Intelligence
- Graduate Machine Learning
- Graduate Computational Geometry
- C++ in UNIX Environment
- CS Capstone Project
- Quantum Mechanics

Experience

Amazon **May 2022 – August 2022**
Software Engineering Intern *Austin, Texas*

- Worked on a tool that enables Amazon science teams to deep dive routes executed by last-mile delivery drivers in order to can obtain the information they need to optimize their route-planning system
- Gathered 14 stop-level and route-level metrics (ex. walking distance per route, aggregate package weight) that contain information about the workload or time details of a particular route. These metrics were obtained/calculated from Amazon databases by integrating AWS Athena calls into the backend component of the tool
- Redesigned the frontend of the tool to add support for the new metrics featuring a side-by-side comparison of any number of routes and a grouping of the metrics by category

FireEye **May 2021 – August 2021**
Software Engineering Intern *Dallas, Texas*

- Migrated crucial security applications from Elastic Container Service to Elastic Kubernetes Service by creating and modifying helm charts (collections of Kubernetes configuration files) and deploying these charts through ArgoCD
- Created a Grafana Dashboard and wrote corresponding PromQL queries in order to monitor various real-time metrics such as bandwidth, throttling periods, and resource utilization on running Kubernetes containers and pods. This Dashboard is currently being used to debug applications and to detect failures or resource allocation mismatches.

University of Texas at Dallas **Jun 2016 – Aug 2017**
NanoTechnology Summer Resarch Intern *Richardson, Texas*

- Developed applications and research on nylon artificial muscles and organic aerogels.
- Work included in a successful NASA STTR Phase II grant application.
- Presented two end of year research projects at the UTD auditorium.
- Conducted a plethora of testing and analysis procedures such as Dynamic Mechanical Analysis, Creep Tests, Split Hopkinson Compression, and Differential Scanning Calorimetry.

Projects

Convex Hull Algorithm Visualizer | *JavaScript, HTML, CSS* **April 2022**

- Created a react application that visualizes three different Convex Hull algorithms to help Computational Geometry students better understand and compare them
- Users are able to place points down to create custom data-sets to better understand which algorithms perform best on which inputs

Clothing Classifier Chrome Extension | *Python, JavaScript* **October 2020**

- Worked on a team to create a chrome extension that classifies clothes by accessing Google's Cloud Vision API
- The extension provides the user the functionality to right-click on any image on a web page and receive characteristics about the image

Technical Skills

Languages: Java, C++, Python, JavaScript/HTML/CSS
Frameworks and Libraries: Node.js, p5.js, React
Tools: Git, Linux, Docker, AWS (Amazon Certified Cloud Practitioner)