

TRENT HAINES

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Education

University of Texas at Dallas

Master of Science in Computer Science

- 3.78 GPA
- Intelligent Systems Specialization
- Fast-Track Program

Graduated May 2023

Richardson, Texas

University of Texas at Dallas

Bachelor of Science in Computer Science

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

Graduated May 2022

Richardson, Texas

Relevant Coursework

- Algorithm Analysis
- Statistics for AI/ML
- Distributed Computing
- Database Systems
- Artificial Intelligence
- Machine Learning
- Computational Geometry
- C++ in UNIX Environment
- Quantum Mechanics

Experience

Roblox

Software Engineer - Backend, Payment Systems

Feb 2024 – Present

San Mateo, California

- Wrote payments business logic for Roblox's PlayStation Plus integration, interfacing with Sony's API to verify user eligibility, publish transactions, and grant items. The system processed over 1 million Roblox Bundle redemptions for PlayStation Plus subscribers in the first quarter as a part of the launch program.
- Introduced ML-based classification of Developer Exchange cashout requests, a system where Roblox Developers trade in virtual currency for USD
- Migrated the backend of Roblox's Customer Support Payment Search from SQL to Elastic Search, and optimized the internal routing architecture for gRPC calls within our payment lookup flow, reducing system load by 5x

Amazon

Software Engineering Intern - Fullstack, Route Planning Optimization

May 2022 – August 2022

Austin, Texas

- Owned an end-to-end project to improve the data quality of an internal tool that allows Amazon science teams to deep dive routes executed by last-mile delivery drivers in order to obtain crucial information for route-planning optimization
- Gathered 14 stop-level and route-level metrics (ex. aggregate package weight) containing information about the workload or timing of a particular route. These metrics were obtained by integrating AWS Athena calls into the backend
- 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

Software Engineering Intern - Backend, Telemetry

May 2021 – August 2021

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

University of Texas at Dallas

NanoTechnology Summer Resarch Intern (2x)

Jun 2016 – Aug 2017

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

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. Students are able to place points down to create custom data-sets to better understand the strengths of the various algorithms in different scenarios

Technical Skills

Languages: C++, C#, Java/Kotlin, Python, JavaScript/TSX/HTML/CSS

Frameworks and Libraries: Boost (C++), .NET/ASP.NET, gRPC/Protobuf, Node.js, React

Tools: Git, Linux, Docker, Grafana