Henry Trinh

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Education

University of California Los Angeles   Expected Graduation in June 2022

B.S. Computer Science   Major GPA: 3.8

Courses   Deep Learning, Data Structures, Algorithms, Operating Systems, Computer Graphics

Experience

Snap Inc.   Los Angeles, CA

Software Engineer Intern   Fall 2021

Two Sigma   New York, NY

Software Engineer Intern — C++   June 2021 - PRESENT

- Options Market Making

Nuro   Mountain View, CA

Software Engineer Intern — Python   March 2021 - June 2021

- Optimized routing algorithm for mapping roads using integer programming, reducing cost per square mile by 30%
- Reduced number of difficult turns and redundant loops for mapping operators by 90% using graph optimizations
- Implemented route visualization tool to analyze route metrics and efficiency

Tesla   Palo Alto, CA

Software Engineer Intern — C++   September 2020 - December 2020

- Released new search feature for locating close amenities surrounding a user-selected Supercharger, requested by thousands of drivers
- Programmed an algorithm to allow drivers to search for places along their route, optimizing total trip time by minimizing detours
- Developed navigation feature for drivers to create and edit trip waypoints with battery management
- Enhanced driver experience by fixing firmware bugs within maps and navigation in vehicles

Amazon   Seattle, WA

Software Development Engineer Intern — TypeScript, Java, AWS CloudFormation, CloudWatch, S3   June 2020 - September 2020

- Improved scalability and performance for console infrastructure by migrating to serverless architecture
- Constructed new pipeline for automated, progressive deployments of certificate manager service with automatic rollbacks to prevent broken releases
- Established server logs and latency metrics to increase ease of maintenance of the Certificate Manager console

Center for Vision, Cognition, Learning, and Autonomy   Los Angeles, CA

Research Assistant — Python, PyTorch   April 2020 - October 2020

- Researched path planning and trajectory prediction for autonomous vehicles using deep learning
- Implemented LSTM neural network with social pooling to determine possible trajectories of human movement in dense crowds
- Created tool to preprocess raw data into loadable binary files, improving data pipeline performance and saving minutes of processing time

Projects

Simultaneous Location and Mapping (SLAM) Tool

- Developed tool to generate a three-dimensional map of an environment by analyzing any given video
- Performed video and image processing using OpenCV to extract features from images and render their points in 3-D space

Skills

Languages   Python, C/C++, Java, JavaScript, TypeScript, SQL, HTML, CSS

Frameworks + Tools   React, PyTorch, MongoDB, Django, Node, Git, Docker, OpenCV, mySQL, PostgreSQL, Numpy

Technologies   Full Stack, Android, Databases, Machine Learning, Computer Vision, SLAM