Henry Trinh

(408) 324-6330 | henrymtrinh14@gmail.com | henrytrinh.xyz | thenry3 | thenry3

Education

University of California, Los Angeles — Expected Graduation in June 2022

Bachelor of Science in Computer Science — Major GPA: 3.9

Courses Data Structures, Algorithms, Operating Systems, Linear Algebra, Discrete Math, Software Construction Laboratory

Experience

Amazon — Seattle, WA

Software Development Engineer Intern — June 2020 - PRESENT

- Contributing in AWS Cryptography on the ACM PrivateCA team in Summer 2020

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

Research Assistant — April 2020 - PRESENT

- Researching deep learning under Professor Song-Chun Zhu for path planning and trajectory prediction in self-driving vehicles
- Implemented LSTM neural network with social pooling to determine possible trajectories of human movement in dense crowds
- Improved performance of data feed pipelines for neural networks by creating a tool to preprocess raw data into loadable binary files, preventing redudant calculations

Archanics — El Segundo, CA

Software Engineer Intern — June 2019 - August 2019

- Developed Android GIS/GPS map application with real-time traffic analysis and 3-D geographical layers
- Programmed mapping functionalities to generate routes, invite people to events, and display multiple datasets

Daily Bruin — Los Angeles, CA

Lead Software Developer — April 2019 - June 2020

- Built database infrastructure and optimized database querying in API endpoints for multiple projects
- Constructed customizable components for the Daily Bruin Lux library, resulting in faster website development
- Increased number of average users by 10% by improving mobile user experience in new interactive flat pages

Projects

Simultaneous Location and Mapping (SLAM) Tool

- Developed tool to generate a three-dimensional map of an environment by analyzing any given video
- Implemented an algorithm to extract features and camera pose from images to render points in 3-D space

Tongits

- Implemented Android application of a Filipino card game with AI opponents, music, and point scoring
- Gained over **12,000 downloads on Google Play Store**

Drug Decider

- Designed database schema and created REST API endpoints to connect the user interface with the machine learning model and database
- Fixed bugs in machine learning model for predicting a patient's treatment response to anti-psychotics
- Used in production by the UCLA David Geffen School of Medicine at **drugdecider.org**

Skills

Languages Python, Java, C++, C, JavaScript, TypeScript, Go, HTML, CSS

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

Technologies Machine Learning, Deep Learning, Android, Computer Vision, SLAM, SQL, noSQL, Web Development