

# Henry Trinh

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## 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 in Summer 2020

### Center for Vision, Cognition, Learning, and Autonomy

Los Angeles, CA

RESEARCH ASSISTANT

April 2020 - PRESENT

- Researching LSTM neural networks with social pooling for path planning and trajectory prediction

### Archanics

El Segundo, CA

SOFTWARE ENGINEER INTERN

June 2019 - August 2020

- 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 - PRESENT

- 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 a 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
- **Over 12,000 downloads** on the 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](https://drugdecider.org)

### Pinstagrad

- Built data pipeline to connect the database with cloud photo storage to maximize retrieval efficiency for displaying multiple photos for a graduation photo sharing platform
- Implemented user photo submission form with photo preview and tagging features

## 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, Computer Vision, SLAM, Android, SQL, noSQL, Web Development