

# Derek Hu

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🏠 Cupertino, CA

## EDUCATION

### SANTA CLARA UNIVERSITY

B.S., Computer Science

B.S., Mathematics

2014-2018

- Cryptography
- Computer Networks
- Machine Learning
- Databases
- Operating Systems
- Algorithms

## LANGUAGES

- Python
- HTML
- C++
- CSS
- C
- Java
- SQL

## EXPERIENCE

### SYNOPSYS, INC.

Technical Engineering Intern | Jul 17 - Sep 17, Oct 17 - Present

- Supervise technical support cases on a global scale
- Improved case turnaround time assigning cases noting expertise and workload distribution
- Extend support for Synopsys products, troubleshooting and processing fulfillments

### AUXILLIUM WEST HRNETSOURCE

Front-End Developer | May 15 - Jun 16, Sep 16 - Jul 17

- Designed company website using HTML5, PHP, CSS, and JavaScript (auxillium.com)
- Amplified online presence using MailChimp, Hootsuite, and WordPress

### SYNOPSYS, INC.

R&D Technical Intern | Jun 16 - Sep 16

- Drafted and built test scripts using C++, Tcl, and regular expressions
- Analyzed code from other projects to learn from and incorporate ideas into works

## PROJECTS

### NETWORKS ROUTING SYSTEM

- Built a program to simulate up to 4 routers
- Updates exchanged using UDP saved in cost tables
- Shortest paths calculated using Dijkstra's algorithm

### YELP REVIEW SENTIMENT ANALYZER

- Created a machine to determine if given Yelp reviews were positive or negative with up to 83% accuracy
- Compared Naive Bayes and Logistic Regression models to find optimal algorithm

### SONG & ARTIST RECOMMENDER SYSTEM

- Analyzed user listening data and song audio features to recommend relevant songs and artists
- Implemented PCA and K-Means with K-Nearest Neighbors to improve accuracy of recommendations