
Education**University of California, Santa Barbara**
PhD student in Computer ScienceSanta Barbara, CA
Class of 2025**University of California, Santa Barbara**
Bachelor of Science in Computer Science (3.94 GPA)
College of Engineering HonorsSanta Barbara, CA
Class of 2020**Work Experience****Researcher in Distributed Systems Lab***University of California, Santa Barbara*

February 2018 – Current

- Reduced workload imbalance for distributed system backends by developing a front end cache, leading to a paper: Cache on Track (CoT): Decentralized Elastic Caches for Cloud Environments (EDBT 2021)
- Improved database query efficiency by using machine learning algorithms to predict queries
- Nominated for 2019 CRA Award for Outstanding Undergraduate Researchers

Teaching Assistant, University of California Santa Barbara*Santa Barbara, CA*

September 2020 - Current

- Taught discussion lectures on topics in Cryptography and Compilers
- Updated and graded homework assignments

Software Engineer / Intern, Toyon Research Corporation*Goleta, CA*

July 2019 – September 2020

- Improved accuracy of object detection in applications of cutting edge models like RetinaNet and Faster R-CNN by tuning hyperparameters and implementing image transformations
- Enhanced understanding of neural network models by generating visualizations
- Authored monthly progress reports by analyzing results for government contracts
- Created image classification model using ResNet to determine benefits of additional LIDAR data

Software Engineer / Intern, Calix Inc.*Goleta, CA*

June 2017 – July 2018

- Developed automation framework on host computer instructing DUT to run self-diagnostics
- Debugged hardware abstraction layer on embedded systems Linux OS

Engineering Assistant / Intern, Material in Motion*Atlanta, GA*

June 2016 – July 2016

- Automated climate control by implementing software to monitor temperature sensors and control fans
- Monitored factory's power usage by interfacing with power meters using Raspberry Pi

Skills*Programming Languages:*

Java, C, C++, Python

Computer Vision:

RetinaNet, Faster R-CNN

Data Science:

R, tensorflow, keras, sci-kit learn

Application Development:

HTML, Javascript, CSS, SQL, Android

Projects on Github: lawrencekhlim

- **Database Query Prediction** (2018) - conducted a research project that tests auto-regressive models, matrix factorization, and recurrent neural networks for predicting arrival rate history of database queries
- **DJ Application** (2018) - developed a web application that allows users to upload and play a track, visualize the sound waves, mix between tracks and add different sound effects
- **NBA Referees Hack (@ SBHacks 2018)** - determined referee bias using regression on NBA datasets
- **Air Quality Index** (2017) - scraped data and charted air quality with R during Santa Barbara fires

Awards**Data Science Award at HackUCI Hackathon — UCI**

- Simulated Monopoly with Python and determined best strategies

January 13th - 15th 2017

Clubs**Vice President, Association for Computing Machinery (ACM Club) — UCSB**

- Organized and led meetings discussing topics in computer science

January 2018 - June 2020