# Darren Huang

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EDUCATION -----

# UNIVERSITY OF CALIFORNIA, BERKELEY

Computer Science, Math Bachelors of Arts

August 2016 - May 2020 Major GPA: 3.95

### Relevant Coursework

Data Structures, Designing Information Devices and Systems, Linear Algebra and Differential Equations, Discrete Mathematics and Probability Theory, Multivariable Calculus, Efficient Algorithms\*, Machine Structures\*, Intro to AI\* anticipated/currently taking

# INTERNSHIP -----

# **SOFTWARE ENGINEER INTERN**

Alarm.com June 2017 - Aug 2017

- Detected real-time anomaly in a timeseries data using a supervised ensemble machine learning program
- Created an interface with that uses unsupervised machine learning functionality to analyze seasonality and overall trend of input data
- Predicted most problematic server metrics and created a web dashboard to display the sorted metrics

# **PROJECTS**

### CAL HACKS 4.0

WRLD API Prize Winner

Fall 2017

**DATABASE** Spring 2017

# **BEARMAPS**

Spring 2017

- Integrated WRLD's 3D mapping with indoor routing, local visualization of social media content, and voice recognition through Google Cloud's API
- Created fully functional web application with team of 4 using Jade, CSS, and node.js within 36 hours
- Individually designed the backend of a database structure modeled after SQL
- Supported user query data retrieval using Java, such as: merging tables, filtering rows, computing various data types, and loading/creating data tables
- Implemented backend of web mapping application of Berkeley, using Java to create shortest path algorithm (A\*) to allow for efficient destination routing
- Supported location-search auto-completion with Trie structures, and frontend zoom capabilities/image and map rasterization with quad-tree structures

# EXPERIENCE

# RECOVERY ENGINEER

Cal Space Technology And Rocketry Sep 2016 - Present

Learning Bee Education Center Nov 2014 - Aug 2016

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- Automate parachute selection for the most optimal landing using Python
- Design the section of the rocket responsible for the GPS, altitude readout, shock cords, parachutes, and deployment events for NASA's College Student Launch Initiative as part of the Recovery team
- **ROBOTICS INSTRUCTOR** Developed various week-long and year-long programming, robotics, and electronics curriculum for kids between 1st and 7th grade
  - Advised students with building a robot for the FIRST Lego League competition

# SKILLS

- Languages: Python, Java, Lua, JavaScript, node.js, Jade, SQL, Scheme, MatLab, HTML, CSS, LATEX
- Tools/Libraries: Git, PyCharm/IntelliJ, Linux, Graphite Database, Python Facebook Chat package
- Supervised/Unsupervised Machine Learning: Timeseries, Weka, Shapelet Transforms, and basic classification models (ie. random forest, support vector machines, ensembles, boosting)