

# Darren Lee

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## EDUCATION

### University of California, Berkeley

8/2016 – 5/2019 (expected)

Electrical Engineering and Computer Sciences (EECS), B.S.

GPA: 4.0 (tech.), 3.93 (cum.)

- Regents' and Chancellor's Scholar (top 1% of class)

- HKN (EECS Honor Society) member (among top achieving EECS students)

#### Coursework:

CS 188: Artificial Intelligence (Spr. 18)

CS 189: Machine Learning

CS 70: Discrete Math & Probability Theory

EECS 126: Probability/Random Processes (Spr. 18)

CS 170: Efficient Algorithms

EE 16B: Information Devices & Systems II

EECS 127: Optimization Models (Spr. 18)

CS 61C: Computer Architecture

EE 16A: Information Devices & Systems I

PHYS 7B: Electricity/Magnetism (Spr. 18)

CS 61B: Data Structures

MATH 54: Linear Algebra/Differential Equations

*Skills:* Java, Python, JavaScript, C, C++, HTML/CSS, SQL, git/unix

## EXPERIENCE

### Yahoo! Inc.

#### Software Engineering Intern

5/2017 – 7/2017

- Redesigned and rebuilt a developer-facing search website for yahoo-internal and external npm modules from scratch using Node.js with Express and Handlebars as a full stack framework
- Utilized Vespa (yahoo's internal search engine) with YQL to optimize search, implemented caching of package metadata, wrote unit tests to verify code correctness, and implemented metrics to track performance
- Designed and created a security-check tool for Yahoo's cybersecurity team to reduce JavaScript/Node security vulnerabilities by identifying underlying packages/libraries used at the application layer that have security risks
- Addressed evolving requirements by adding support for multiple, configurable security algorithms and reporting methods, and developed functionality for the tool to be used as both a command line utility and a library

### Cal Launchpad

#### Project Developer

1/2017 – 5/2017

- Worked with the Amazon AI Team to build a convolutional neural net in Tensorflow for real-time food classification
- Developed and trained a CNN using the LeNet architecture on a dataset containing 10,000 images of foods
- Implemented computer vision algorithms for real-time hand tracking using OpenCV in Python

### BMC Software

#### Software Development Intern

12/2016 – 1/2017

- Built and integrated a timeline widget for BMC Innovation Studio using AngularJS
- Applied skills in software development lifecycle and product management, including Agile Methodology

### De Anza College

#### Computer Technical Support Lab Intern

4/2016 – 6/2016

- Refurbished old computers to provide to low income De Anza College students
- Provided technical support by diagnosing and solving both hardware and software issues for other students

## PROJECTS

### Order of the Wizards

11/2017

- Modeled and solved an open-ended NP-hard constraint satisfaction problem involving determining a correct relative ordering of wizards by age, given a set of binary constraints
- Wrote an efficient min-conflicts local search algorithm in Python that could solve large input files within several hours that tied for 1<sup>st</sup> place (out of 300+ entries) in CS 170's final project competition

### Urban Dictionary Chrome Extension

1/2017

- Built and released an elegant chrome extension that allows users to easily view Urban Dictionary definitions while browsing the web (chrome web store: <https://goo.gl/NO7o57>)
- Used JavaScript and jQuery for popup and context-menu functionality, and YQL for web scraping

### Scheme Interpreter

11/2016

- Created a basic Scheme interpreter in Python that uses "read-eval-print-loop" to parse and evaluate Scheme expressions and uses tail recursion to optimize for recursive procedures
- Used Scheme to create randomly generated recursive art that won 2<sup>nd</sup> place (out of 32 entries) in CS 61A's Scheme Recursive Art Contest