Micah Harrison

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EDUCATION

University of California, Berkeley | Bachelor of Arts (B.A) in Computer Science Expected: May 2020

- <u>Selected Courses(*in progress):</u> *Efficient Algorithms, *Techniques of Data Science, Database Systems, Machine Learning Decal, Data Structures, Discrete Mathematics, Linear Algebra
- Intended Courses(Spring 2019): Computer Security, Operating Systems

PROJECTS

Tensorflow Object Detection — Machine Learning in Python

May-July 2018

- Created a 4-week project using tensorflow to teach students about machine learning
- Trained default tensorflow model to track customized objects that resulted in over 90% accuracy
- Adapted model to work with live and recorded video feeds using Open-CV

Unity —C#

July-August 2018

- Developed a fully functional 2D beat-em-up style game using Unity as the game engine and C#
- Established upgrade and store mechanics by utilizing singleton design patterns for game controls

Gitlet — Data Structures in Java

November 2017

- Designed a version-control system that supports a subset of features after Git
- Features included pushing and pulling from local and remote repositories and merging branches
- Ensured efficiency in file lookup by instituting a Content-addressable file system

Database System — Data Structures in Java/ SQL

September 2017

- Implemented a miniature relational database management system that stores tables of data
- Built a query language interpreter in the system to understand a subset of MySQL commands
- Guaranteed durability by maintaining a transaction log of processes executed

Yelp Maps — Data Manipulation/ Machine Learning in Python

September 2017

- Generated a visualization of restaurant ratings using machine learning and Yelp academic database
- Executed a *supervised* learning algorithm that generalizes ratings of 30+ restaurants based on features from restaurants the user has previously rated

LEADERSHIP EXPERIENCE

Codeology — Project Leader

August 2018 - Present

- Lead a four-week project development process for 9+ members to learn and expand their interests into varying fields of computer science such as machine learning
- Provide a development process for all levels of skill while also catering towards newcomers with additional resources and one on one assistance

Bright Prospect — Outreach/Member

August 2014 - Present

- Advocate for program at 4 high schools to influence prospective college students to join program
- Assist current high school members by providing information about the college application process and helping them to prepare for the college transition

SKILLS

Technical: Java, Python, MySQL, C, C#, Unity, Git, HTML, CSS, Tensorflow, Pandas

Non-technical: Time and resource management, Outreach, Public speaking