Jason Vega

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Education

University of California, San Diego June 2022 (expected)

B.S., Cognitive Science (Machine Learning and Neural Computation)

Coursework: Introduction to Programming (Diablo Valley College), Structure and Interpretation of Computer Programs (UC Berkeley), Introduction to Computer Science and Object-Oriented Programming: Java, Calculus and Analytical Geometry for Science and Engineering

Projects

OneByte App (SD Hacks) October 2018

https://github.com/jason-vega/OneByte

- Created a mobile app in a team of three people that allows users to efficiently find and advertise free and low-cost local food through a feed of crowd-sourced data.
- Implemented backend features of sending and retrieving real-time data using Firebase in a React Native framework.
- Contributed to the style and layout of the app's login, feed and "Add Event" screens using CSS and JSX.

F.R.C. 2018 Robot January 2018-March 2018

github.com/FalconX-Robotics/frc2018

- Contributed to the development of Java code for a F.I.R.S.T. Robotics Competition robot in a team of four.
- Utilized the WPILib API to program the drivetrain to autonomously move a desired distance and turn at a desired angle using feedback from encoders and a gyroscope.

Scheme Interpreter (Structure and Interpretation of Computer Programs) August 2017

- Developed an interpreter for a subset of the Scheme language using Python.
- Implemented features including support for tail calls, dynamic scoping and macros.

Experience

President, Project Manager, Programming Mentor May 2017-May 2018

FalconX Robotics, Pleasant Hill, CA

- Managed a team of 35 high school students who designed, fabricated and programmed a 120 lb. industrial-sized robot to participate in the F.I.R.S.T. Robotics Competition within a six-week time frame.
- Single-handedly developed and taught a series of lessons to introduce programming basics and OOP using C++ and Java to new students, complete with slideshows, assigned readings, demo code and exam.
- Promoted student outreach and diversity resulting in a growth of 133% in active student membership from first year; 66% of members were new underclassmen, and 40% of members were female.

Academic Intern January 2018-May 2018

UC Berkeley Electrical Engineering & Computer Science Department, Berkeley, CA

- Engaged with students in an introductory computer science course of over 1000 students during lab (approximately 30 students) and office hours to help with homework, lab assignments, and exam prep.
- This course was taught using Python, SQL and Scheme, and allowed me to explore different approaches to teaching programming concepts and learn how to empower students to solve problems on their own.

Skills & Activities

Programming: Python, Java, C++, SQL, HTML/CSS | **Foreign Languages**: Chinese | **Activities**: Violin