Jason Vega

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Education

University of California, San Diego June 2022 (expected)

B.S., Cognitive Science (Machine Learning and Neural Computation), **GPA**: 4.0

Coursework (* in progress): Intro to Data Structures*, Software Tools and Techniques*, Linear Algebra*, Discrete Math*, Vector Calculus, Structure and Interpretation of Computer Programs (UC Berkeley)

Projects

Fuzzy App December 2018-Present

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

- Currently developing a mobile application to help combat low self-esteem by allowing users to save encouraging text messages and other positive memories (e.g. photos) in one central virtual album.
- Using Dart in Google's Flutter framework to build the application with a modern look (e.g. using Material Design Cards) as well as a system for storing, retrieving and modifying user data in a local JSON file.

Symphonic Student Association Website (Triton Software Engineering) November 2018-Present

https://github.com/TritonSE/SSA

- Currently developing a website for the Symphonic Student Association at UCSD in a team of six students.
- Utilized HTML and CSS in a Bootstrap framework to create a responsive layout of the home page elements, including the navbar and background slideshow.
- Leading research and development on using the Google Calendar API in PHP to retrieve and display public calendar data, as well as reverse engineering an embedded Google Calendar to modify its default appearance.

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.
- Utilized Firebase in a React Native framework to implement sending and retrieving real-time data.
- Delegated tasks and served as a key member pushing the project to completion within the last 24 hours.

F.R.C. 2018 Robot (FalconX Robotics) 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 WPI Robotics (Java) Library to program the drivetrain to autonomously move a desired distance and turn at a desired angle using feedback from encoders and a gyroscope.
- Pioneered research of implementing PID loop control and provided mentorship for new team members.

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.
- Developed and taught a series of lessons to introduce programming basics 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.
- Explored different approaches to teaching programming concepts in Python, Scheme and SQL, and learned how to empower students to actively engage with the problems they were trying to solve.

Skills & Achievements

Programming: Python, Java, C++, Dart (Flutter), HTML/CSS | **Foreign Languages**: Chinese | **Activities:** Violin

Achievements: 2nd Place - Women in Computing Fall '18 Programming Competition (all genders inclusive), UCSD