

# John Sullivan

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References available upon request

## Education

- B.S. Computer Science, CSU Monterey Bay, May 2018
- Eagle Rock High School, June 2014

## Experience

### **Freelance Software Developer**

January 2020 | Los Angeles/Remote

- Provide technical services to clients, such as backend software or web development
- Determine scope and outcomes for client projects
- Consulting for software installation, hosting, etc

### **Co-Founder/Software Developer | Spodder**

August 2019 | Remote

- Allows users to anonymously add and discover 'beacons' on a shared map, which detail local places and events
- Created mobile app using React Native/React-Redux with integrated analytics tracking and more

### **Software Engineer II | Capture2**

July 2018 - August 2019 | San Diego, CA

- Created reporting integrations for Office365 using ReactJs, allows customers to create reports using tools they're already familiar with
- Implemented a search-by-location capability for govt business opportunities, allowing customers to easily find opportunities in places relevant to their business
- Eliminated wasted time and human error from manually deploying backbone architecture by automating with Azure RM templates, Ansible, and Docker
- Deployed and maintained a set of polyglot backend REST API services which added critical features, including technologies implemented in C#, Java, and Python
- Used Kibana to identify search performance bottlenecks and improve customer experience

## **Teaching Assistant | TA++ Program, CSUMB SCD**

August 2016 - June 2018 | Seaside, CA

- Delivered quality instructional assistance to the Intro, Multimedia, and Web programming classes
- Advised students on technical considerations for python multimedia projects
- Collaborated on an engaging intro programming curriculum including in class labs, study sessions, and extracurricular activities
- Directed Peer-Led-Team-Learning sessions that improved student cooperation and practical problem-solving skills

## **Undergrad Researcher | CSUMB-UROC Research Internship**

May 2016 - August 2017 | Seaside, CA

- Synthesized original research in computer input peripherals
- Used data science methodologies/scikit to test signal processing and classification techniques
- Assisted in other VR/peripheral related projects in a cooperative lab environment

## **Computer Repair Volunteer | Loaves Fishes and Computers**

September 2017 - January 2018 | Salinas, CA

- Technician assisting with refurb of computers for in-need community members
- Wrote software for automated hardware lifetime checks & issue reporting
- Assisted customers one-on-one in technical support and consultation

## **Highlighted Projects**

### **AttentiveAI | Using ubiquitous 5G for classroom engagement**

**Winner of ATT 5G Hackathon -- Best use of Cloud Technology**

- Application that gives teachers realtime information on classroom attention, using computer vision and IoT devices. Consulted on the concept and provided guidance for using React Native

### **Trumpbot | RNN trained on tweets to generate new messages**

**[Github Repository/Jupyter Notebook Report](#)**

- Takes tweets from @realDonaldTrump and creates new messages. Uses pre-processing techniques in sklearn and an RNN-based text generator written in tensorflow

## **Flex | Hand gesture recognition using muscle flexing sensors**

### [ACM Digital Library](#)

- Novel gesture sensor intended for use as a general-purpose remote control
- Used multiple recurrent neural networks in a bagging configuration to classify gestures used by the Myo sensor
- Developed driver code for the sensor, recording framework for collecting gesture samples, implemented classification techniques

## **Multi-Leap | Multiple LeapMotion controllers on one machine**

### [Demo on YouTube](#)

- System that allows for multiple people to use an interactive projection surface at the same time
- Multiple leapmotion hand trackers on one machine, multiplexed through systemd-nsnspawn
- Doesn't require any virtual machines, fault-tolerant
- Can be used over the network or locally for interactive applications

## **Skills**

### **Experience Areas**

- Operating Systems
- Data Mining
- Machine Learning
- Graphics Programming
- Multimedia Programming
- Software Design
- Game Programming
- Computer Networking

### **Languages/Tech**

- C++ • C\# • C • Rust
- Java / Android • Clojure[Script]
- JavaScript(ECMA) • React.js/Native
- Python • Flask
- ShellScript
- Unity3D
- SocketIO
- Elastic Stack • ASP.NET Core • SQL Server
- OpenGL/DirectX • R
- SciKit Learn • Tensorflow
- REST API Design • GraphQL

## IT/DevOps

- Ansible • Docker • AWS • Azure
- Linux/\*nix Admin/Support
- Windows Setup/Support
- Unix Tools/Scripts
- Git collaboration, build hooks, CI