# **Christopher Valenzuela**

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#### **EDUCATION**

University of California, Irvine – Irvine, CA

B.S. Electrical Engineering and Computer Science

Specialization in Digital Signal Processing and Communications

### TECHNICAL SKILLS

- Front-End: HTML, CSS, JavaScript (ES6), Bootstrap, jQuery, API Calls, C Programming,.
- Back-End: Nodejs, MySQL, FireBase.
- Tools: GitHub, Visual Studios Code.
- Miscellaneous: Electrical Engineer Fundamentals, MatLab, SolidWorks, Arduino Experience.

### **PROJECTS**

Bird Attendance Sheet March 2018

- https://christsv.github.io/BirdAttendanceSheet/
- Created prototype for signing in scooters at my Electrical Engineer Department at Bird Ride Co.
- Utilized Firebase as back-end database to store scooter IDs. Each unique key is accessed to calculate the performance of
  each technician.
- Utilized HTML, CSS, and Bootstrap for front end.

Personal Website April 2019

- https://christsv.github.io/ChrisValenzuela
- Built a personal website via **HTML** and **CSS**. This website highlights my creativity, style and portrays my progression as a web developer and an engineer.
- Utilized **Ajax** for API calls to create a "Quote of the Day" section.
- Extensive **Bootstrap**, **CSS Animations** and **jQuery** to style and set up the semantics of my website.

Sports Sensory Arm Sleeve

September 2016 – March 2017

Graduated: June 2017

- Team Lead of four that created a basketball sleeve to improve users "basketball shot form."
- Utilized MPU 6050 accelerometers, LCD, and Arduino Nano's to measure shot angle of user's basketball form.
- Formulated the equations for the accelerometer code via C.
- Utilized SolidWorks to calculate the measurements for system integration and soldering.
- Tech: Arduino Components, C Programming, SolidWorks

## **WORK/HANDS-ON EXPERIENCES**

Electrical Engineer 1, Abbott Laboratories, — Sylmar, CA

August 2018 - January 2019

- Utilized hardware devices such as oscilloscopes, DMMs, and AWGs to troubleshoot medical devices.
- Created design specifications and test reports via Microsoft Excel that satisfied the Automated Test Engineering (ATE) requirements.
- Generated data via dry-runs and official-runs to generate quality and R&D reports for each function of the device being ran.
- Tech: Oscilloscopes, JavaScript, Microsoft Excel.

Electrical Engineer/Developer, **Bird Ride Co**, — Culver City, CA

February 2018 — August 2018

- Developed prototypes for the logistics of tracking scooters repaired in our Technical Department.
- Collaborated with Research and Development Engineering team to help with the design of the new scooter, research Brushless DC motors and lithium-ion battery packs with integrated BMS (battery management system), and chargers in order create a more sufficient battery cycle.
- Utilized a GSM module called U Blox SARA-U260 or Bluetooth controlled Ninebot chip to track the location of vehicles.
- Developed Troubleshooting skills to determine hardware/software malfunctions in the scooter.

Undergraduate Researcher, Visual Light Communication Research, — UC Irvine, CA

Fall 2015 - September 2016

- Team lead of Hardware, researched and assisted with optimizing and integrating hardware to assist the software.
- Programmed in C Language with an Arduino Uno Board to transmit data packages via an LED diodes.
- Built Visual Light Communication (VLC) prototype.
- Tech: C Programming, Arduino Components, Electrical Engineer Fundamentals