





# Dennys Morales

## CONTACT

 (310) 909-6588  
 [dennysrmorales@gmail.com](mailto:dennysrmorales@gmail.com)  
 <https://dennysrmorales.github.io/>  
 3920 Riviera Dr Apt H San Diego, CA 92109

## EDUCATION

**Carnegie Mellon University, Class of 2016**  
B.S. Mechanical Engineering

**Santa Monica College, Summer & Fall 2018**

## SKILLS

**Front End Languages** HTML, CSS, JavaScript, TypeScript  
**Back End Languages** Python, SQL, Node.js, PHP  
**Databases** PostGreSQL, Mongo  
**Frameworks and Technologies** Git, AWS, Bootstrap, Express, Angular, REST, Django, MATLAB, PyQt

**Languages** English, Spanish

## PROJECTS

### Web Application Projects 2018

- Developed a Task Management App using the MEAN stack, Shopping Cart App, Basketball Statistics App that hits an API, and Concentration Memory and Flag Quiz Games that display time and store rankings

### Python Projects 2017

- Programmed Connect 4, Snake, and a Myers Briggs personality test that takes input and outputs personality result

### Charging Station 2016

- Built a charging station that only functions when all three available seats were displaced and increases in efficiency as more people use it
- Used gas springs to detect users and resistors to output power accordingly

### Strain Gauge 2016

- Designed and constructed a force transducer that captured thrust vs. time curve for a model rocket engine
- Fabricated the force sensor, developed signal-conditioning circuitry, and calibrated the sensor

## WORK EXPERIENCE

### Peau Productions Software Engineer

June 2018 - Present | San Diego, CA

- Developed a standalone application (MAPIR Camera Control – MCC) for the processing of aerial and surveying images
- Designed algorithms (using OpenCV) for camera calibration, vignetting, color correction, file conversion, and debayering
- Building an image processing web app using Mongo, Express, Angular, and Node

### Second Spectrum Software Engineering Intern (Data Team)

June 2017 - November 2017 | Los Angeles, CA

- Developed a GUI that uses a Postgres database and determines the quality and efficiency of QA
- Built a system that automatically uploads video to AWS S3 from various servers
- Managed ETL pipelines – parsed large data sets received in XML, JSON, CSV, and binary
- Built a system that automatically imports parsed soccer game data into semantics workflow such that collisions were handled and errors were logged
- Collaborated with interdisciplinary teams to improve a soccer video query product for potential clients such as Premier League and MLS

### Drinkstation Mechanical Engineering Intern

February 2017 - May 2017 | Los Angeles, CA

- Designed and manufactured essential nozzle components of a Drinkstation (water dispenser) that optimizes carbonation and fluid flow utilizing 3D modeling and rapid prototyping
- Tested and updated designs for components that convert turbulent flow to laminar flow
- Performed analysis, evaluation, and assembly for various prototypes

### Second Spectrum Team Manager of Tracking Operations

January 2017 - May 2017 | Los Angeles, CA

- Managed a team of 6-8 operators that provided Quality Assurance for the Official Player Tracker of the NBA
- Troubleshooted and debugged any errors the software had
- Compiled detailed summary reports for the games