





Dennys Morales

CONTACT

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EDUCATION

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

SKILLS

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

CAD Software Solidworks, Fusion 360, Autodesk Inventor
Machines Mill, Lathes, Drill Press, Laser Cutter, 3D Printers
Certifications Certified SolidWorks Associate (CSWA)

Languages English, Spanish

PROJECTS

Web Application Projects 2018

- Developed a Task Management App using the MEAN stack, Calculator 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

Second Spectrum Software Engineering Intern (Data Team)
June 2017 - November 2017 | Los Angeles, CA

- Developed page that interfaced with Postgres database to determine the quality and efficiency of QA
- Built systems that automatically uploads data and video to AWS
- 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
- Refactored validation system that flagged invalid soccer events
- Collaborated with front-end developers and business development to improve a soccer video query product for potential clients such as Premier League, Bundesliga, and MLS

Drinkstation Mechanical Engineering Intern
December 2016 - 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
- Prepared engineering drawings for prototyping purposes
- Operated in-house 3D printers and support material dissolver. Printed 50+ components and tested for proof of concept

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

PupPod Intern

June 2016 - August 2016 | Los Angeles, CA

- Compiled reports for force simulations run on the pod to find optimal size, shape, and material