

Rodrigo J. Sanchez

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EDUCATION

Purdue University, College of Engineering

Bachelor of Science in Mechanical Engineering, GPA: 3.73

Awards and Honors: Dean's List and Semester Honors

West Lafayette, IN

Expected Graduation: May 2024

Fall 2020 – Present

EXPERIENCE

People's Plumbing & Mechanical Inc.

Operations Coordinator

June 2023 – July 2023

Miami, Florida

- Organized all the submittals, construction drawings, and RFIs for each project using the Procore construction platform.
- Detected the different modifications applied to the construction drawings using the Revu Bluebeam construction software.
- Optimized and estimated the cost of the Mechanical and Plumbing design for the given projects in collaborative environment with other employees.
- Monitored the progress of ongoing projects by frequently visiting work sites.
- Completed the OSHA 10 hour Outreach training program for construction.

Toyota

Car Mechanic Intern

June 2022 – July 2022

Cartagena, Colombia

- Diagnosed a faulty injector that was causing a rough idle in one of the cylinders using an OTC scan tool.
- Replaced a damaged Air to Fuel ratio sensor located on the exhaust gas pipe.
- Aided in the process of engine assembly and disassembly, gaining insight of all necessary components for periodic maintenance.
- Collaborated with car mechanics to accurately diagnose mechanical failures occurring in vehicles.

PROJECTS

Autonomous Robot Design

Group Member

April 2023

West Lafayette, Indiana

- Programmed a two-wheeled robot that completes "line following" and "herding" movements using controller design techniques with LabView and a MyRIO device.
- Assembled the robot and checked for proper functionality in a collaboration with a teammate.

Wind Turbine Gear Design

Prototype Analyst

April 2023

West Lafayette, Indiana

- Designed a worm-spur gear mechanism with a compound gear system to reduce the rotational speed of the turbine blades given a fixed power source of 9 volts.
- Designed the gear components using SolidWorks CAD software with a partner.

Vegetable Chopper with Slide Mechanism

Group Member

April 2022

West Lafayette, Indiana

- Proposed the final prototype sketch by using the morphological chart technique and a weighted decision matrix.
- Aided in designing a CAD model of a vegetable chopper with a built-in push mechanism.
- Analyzed cooperatively the market research results to select the most weighted customer requirements.

SKILLS

- Software:** MATLAB (Intermediate), Siemens NX, Microsoft Office Suite, LabView (Intermediate), SolidWorks (Intermediate), Revu Bluebeam, Procore, Master Cam (Intermediate)
- Languages:** Spanish (Native), English (Fluent).
- Relevant Coursework:** ME 37500 (*Systems, Controls, and Measurements II*), ME 30000 (*Thermodynamics II*), ME 27400 (*Basic Mechanics II*), ECE 20010 (*Fundamentals of Electrical Engineering*), ME 31500 (*Heat and Mass Transfer*), ME 35400 (*Machine Design*), ME 36300 (*Principles and Practice of Manufacturing Processes*)

INVOLVEMENT

- Pi Tau Sigma (Mechanical Engineering Honor Society)*
- Society of Hispanic Professional Engineers (SHPE)*
- Purdue ASME member*