Ali Alliyani

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EDUCATION

Majors: **Mechatronic Engineering & Mechanical Engineering** **Graduated, December 2018**
Minor: **Computer Engineering** California State University, Chico

TECHNICAL SKILLS

Programs: SolidWorks, PSpice, OrCAD, MATLAB, AutoCAD, Raspbian, Timer Pro, T.K. Solver, LabView, Eagle CAD, Microsoft Office Suite

Coding Languages: Ladder Logic, C, C++, Python, Assembly Language, Java, HTML
Bilingual: English & Spanish

WORK EXPERIENCE

Manufacturing Mechanical Engineer April 2020 – October 2020
NxEdge **San Carlos, CA**

- Organized the layout of the facilities polishing room and with a team we designed the room to be explosive proof following NFPA guidelines.
- Designed, developed, and implemented a 120V step down to a 24V leak detection system for the plating process floor.
- Analyzed, prototyped, and tested a custom lid for plating tanks that can retain/recycle vapors and maintain a constant warm temperature for the chemicals so that it would reduce electric heater usage.
- Ran meetings every morning with maintenance team to coordinate tasks, organize plans and hold discussions about facility issues.
- Designed an overflow float jig that operators can use to not overfill chemical tanks with deionized water.
- Created an interactive spreadsheet map of process tanks in the facility that when a tank is clicked, details of accessories, temperatures, chemical mixtures and tank dimensions appear.
- Made repairs on the process line when needed, such as trouble shooting 240V (3 phase) and 480V (3 phase) controller boxes that regulate heaters to set temperatures.

Field Service Engineer January 2019 – March 2020
Kawasaki Robotics (U.S.A.) Inc. **San Jose, CA**

- Troubleshoot and test various robots, as well as monitor and track their failures and other irregularities.
- Verify the reported issues, document the steps to reproduce and validate the solution/fix.
- Analyze and provide solution support across customer production site.
- Assisted in reorganizing and designing new working bays and the layout of the lab floor while implementing 5S organization method.

Mechanical Engineer Intern September 2017 – March 2018
Bell Carter Olive Packing Company **Corning, CA**

- Conducted time studies on four packing lines and their equipment to determine the lag time and efficiency.
- Compiled time study data on Excel and calculating the overall equipment effectiveness (OEE) of the machines.
- Validated the hiring of more operators for each line.

Mechanical Engineer Intern Summer 2017
Fresenius Medical Care **Concord, CA**

- Collaborated with a team to improve worker efficiency and reduce waste or error of an assembly line by 20%.
- Designed a cart that carries 40% more finished products, improving workspace on the production floor.
- Recorded time studies to improve production floor takt time.

TECHNICAL PROJECTS

Hitch Helper (Project Manager – Senior Project) Spring 2017 – Fall 2017

- Designed and developed with a team a prototype camera that assists customers hitch their vehicles with an app.
- Coded functions for a camera to target color badges and then calculate their distances.
- Led the team to the best of my abilities as project manager to design and build a functioning prototype.

Automated Packaging, Sealing/Cutting System Spring 2017

- Designed using a motor sizing method that calculates the total sum of inertia in the machines system to decide motor selection, controller selection and motor drive (amplifiers) for the application.
- Designed and demonstrated proof of concept with motors, drivers, and controllers provided from the engineering department.

Light Tracker Controls Project Fall 2017

- Monitored disturbances of the system and applied a controller to improve stability and reduce data interference.
- Ranked P, I, and D controller inputs and reported the effectiveness of a PID controller.
- Created both frequency response and unit step response plots on MATLAB to analyze the input effects through filters.

Automated Pneumatic Screwdriver Spring 2013

- Designed and automated a conceptual mechanical system using SolidWorks.
- Programmed a logic controller (B&R PP35 control pad) for user to operate the automated system.

AFFILIATIONS

Latinos in Technical Careers (LTC) 2012-2018
Web Master (2015-2016)
Vice President (2016-2017)

Mexican American Engineering Society (MAES) 2012-2018

Society of Hispanic Professional Engineers (SHPE) 2012-2018

American Society of Mechanical Engineers (ASME) 2013-2017
Vice President (2016-2017)

American Institute of Mechatronics Engineers (AIME) 2015-2017
Vice President (2016-2017)

National Society of Black Engineers (NSBE) 2014-2017