

# Jonathan Duarte

MECHANICAL ENGINEER

United States

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## Summary

2+ years experienced Engineer with proven excellence in designing, installing and testing electro mechanical systems. Adept at executing projects with proposed deadline and providing support to the leadership as per the needs of the organization. Highly proficient in mechanical drawing, system design & programming.

## Skills

<b>Key Skills</b>	System Design, Mechanical Drawing, Team Work & Leadership, Report Generation, Product Development
<b>Software</b>	SOLIDWORKS, Zemax, ANSYS
<b>Programming</b>	Excel VBA, Java, MATLAB
<b>Mechanical Tools</b>	Calipers, Depth Gauges, Micrometers, Multimeter, Sin Bar, Interferometer, Spectrometers

## Experience

### SharkNinja

Needham, MA, USA

SOFTWARE QUALITY ASSURANCE ENGINEER (TEMP-CONTRACT)

August 2021. - December 2021

- Performed test protocols for automated robotic vacuums to verify functionality and feasibility with mobile devices
- Confirmed the behavior and compatibility with robot's software programming to discover possible defects
- Reported defects/bug through the Jira database where Agile was used to pass along details to software engineers
- Used laboratories with obstacles as per RSTL confluence to test the robot's hardware limitations and report any of its defects

### FLIR Systems, Inc.

Marlborough, MA, USA

MECHANICAL DESIGN ENGINEER (CONTRACT)

August 2019 - May 2020

- Planned and executed blueprints and technical drawings to new company template for state-of-the-art high-capacity infrared optic-mechanical systems, increasing industrial output by 20%
- Interpreted and implemented optic-mechanical designs through tolerance analysis on ASME Y14.5-2009 within a variety of programs simultaneously.
- Managed engineering change notice process while liaising with manufacturing operations

## Personal Projects

### Portfolio Website

HTML, CSS, JAVASCRIPT

May 2019

- Designed a responsive personal portfolio to showcase my skills and abilities within the mechanical engineering field.
- Utilized Font Awesome, wow.js and smooth scroll to beautifully capture browsing in all screen sizes.

### SOLIDWORKS Improved Robot Assembly

MATLAB, SOLIDWORKS

March 2019

- Designed a 4 linked 1/3 scale industrial arm robot that performed a pick and place kinematics simulation.
- Created a MATLAB GUI interface that sent lateral, longitudinal, and angular commands to the robot.
- Used MATLAB workspace to stabilize feedback within a closed loop control during intensive operations.

## Education

### University of Notre Dame

Notre Dame, Indiana, USA

B.S. IN MECHANICAL ENGINEERING

2015 - 2018

- Participated in 3:2 Program Engineering partnership with Assumption College and Notre Dame

### Assumption College

Worcester, Massachusetts, USA

B.A. IN MATHEMATICS

2012 - 2015