



# Emett Santucci

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Young, Passionate, and Creative Mechanical Engineer with a passion for tackling difficult problems through fast-paced, iterative, hands-on design and extreme attention to detail. Equipped with strong technical skills as well as being an excellent communicator and team player.

## Technical Skills:

Strong skills in SolidWorks (4 years), Autodesk Inventor (7 years), Siemens NX (currently studying), NI LabView, FEA Simulation Mechanical & ANSYS, MasterCam & MACH3 CNC/CAM, Matlab & Python languages

Comprehensive experience with machine and mechanism design, GD&T, manufacturing methods, and prototyping (MIG/TIG welding, soldering, manual machining, CNC, 3D printing & sheet metal)

## Relevant Work Experience:

Product Engineer - LightArt - Seattle, WA 7/19 to Present

- Designed new product lines from ideation and prototypes to mass manufacturing, in a fast-paced, small team environment, while considering manufacturability, ease/speed of assembly, and cost
- Developed new manufacturing processes, tooling, and assembly fixtures for efficient, low cost construction across multiple assembly lines and products
- Supported the opening of a new factory by creating work instructions, performing product verification and approval, working with new suppliers, and refining manufacturing processes for existing product lines.
- Conducted testing and verification to ensure products meet relevant domestic and international regulations

Manufacturing Engineer Intern - KEITH Manufacturing - Madras, OR 6/15 to 8/16

## Project Experience:

**NASA Robotic Mining Competition (RMC) - UP Robotics Club** 9/16 to 5/19

Mechanical & Electrical Teams Lead Engineer and Robotics Club Vice-President

- Designed, prototyped, and manufactured high tolerance dynamic systems with hundreds of components
- Effective multi-disciplinary team management and resource allocation
- Advanced CAD modeling and Finite Element Analysis (FEA) of individual parts and dynamic systems
- Creative problem solving and field testing/troubleshooting of mechanical systems

**Electromechanical Valvetrain - Senior Capstone Project - Team Lead** 9/18 to 5/19

- Designed cutting edge valve control hardware for ICE intake and exhaust valves using custom designed and manufactured high tolerance pneumatics, actuators, and solenoids
- Developed control algorithms in LabView RealTime with sub-millisecond read and response time
- Improved overall efficiency and power output of standard combustion engine
- Conducted design reviews to ensure successful subsystem integration and maintain updated design criteria

## Education:

BSME - University of Portland - Shiley School of Engineering Graduated May '19

Honors: Khalid Khan Excellence in Manufacturing Engineering Award

- Awarded to top Mechanical Engineering graduate based on design and manufacturing proficiency