

Ethan Barlow

Ogden, UT

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(Portfolio) www.ethanbarlowhq.com

EDUCATION

B.S. Mechanical Engineering (3.84 GPA)

Weber State University – Ogden, Utah

ABET Accredited

May 2019 – April 2023

WORK EXPERIENCE

Mechanical Automation Engineer (3 Years Full-Time)

Bechtel (Defense & Space Division) – Ogden, Utah

May 2022 – Present

Aided in creation of “Sentinel” Intercontinental Ballistic Missile for the U.S. Space Force.

- Automated export of solid model data for Siemens NX, AutoCAD, Inventor, Revit.
- Created database to convert 2D as-designed mechanical systems to 3D fabrication parts.
- Tested point cloud LIDAR data conversion for solid model geometry analysis.
- Implemented military codes and standards for design and development of space vehicles.
- Designed selection of air filters to clean radioactive dust particles.

Robotic Arm Research Assistant (3 Years Part-Time)

Weber State University – Ogden, Utah

Sept 2020 – Aug 2023

Performed research for WSU Mechanical Engineering department.

- Produced 6 publications & 3 accepted grant/scholarship proposals.
- Designed and fabricated humanoid robotic arm for telemanipulation using data glove interface, master-slave control, and a new algorithm for computing robot kinematics and rigid body transformations.
- Spearheaded rapid design, prototyping, and automation of experimental setups for multiple studies concerning droplet impingement and splatter mitigation in a fluid.
- Collected high-speed footage using Photron Fastcam.
- Directed classroom laboratory experiments and lectures.

CAD Designer (3 Years Part-Time)

Petrus Solutions – Clinton, Utah

July 2019 – June 2022

Created patent drawings for 18 commercial products using SolidWorks, including:

- [Culinesco® Ergo Spout](#): Mason jar attachment for comfortable storage/dispense of liquids.
- Drone Delivery Basket: Exterior mounted container for remote package delivery via drone.
- Caulk Gun Holster: Waist attachment for easy storage/transport of caulk gun during use.
- Language Translator: Graphical User Interface (GUI) for language translator device.

TECHNICAL SKILLS

Software: ROS, C++, Python, Linux, MATLAB Simulink, Arduino, SolidWorks, ANSYS, Inventor, Revit.

Fabrication: GD&T, 3D-Printing, Soldering, Milling, Lathework, MIG Welding, Waterjet Cutting.