

Adam DiMaio

Mechanical Engineer

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Summary

I am a Mechanical Engineer EIT with experience in Power Delivery contributing with expertise in Solid Mechanics which consists of Mechanical Design, FEA, CAD, and Manufacturing Knowledge.

Education

Utah Tech University

Mechanical Engineering, BS
GPA: 3.44

August 2021 - May 2025

Professional Experience

EC Sources (MasTec Power Delivery)

Associate Engineer

September 2025 - Present
Las Vegas, NV

Working within the MasTec Power Delivery Major Projects Engineering Team on Major Utility Projects consisting of Transmission Lines and Substations Engineering, Procurement, and Construction.

- A Major Project I am currently working on is called Nevada Energy Greenlink consisting of 585 miles of transmission line and 8 substations throughout the state of Nevada.
- The goal I was given on this job was to contribute wherever needed and to reduce the reliance on spending hundreds of thousands of dollars using subcontractors in creation and modification of hardware.
- By leveraging my SolidWorks skills, I am able to assist in Hardware Modifications or Creation to help improve upon the safety of the field construction crew.
 - Assisted in the creation of Testing Mechanisms and Stringing Dead End Assistant Hardware Modifications.
 - I use the Finite Element Analysis within SolidWorks to ensure proper safety factors, correct materials used, and low deformations.
- I work under the Principal T-Line Engineer and am used elsewhere throughout the project of where I am needed such as assisting in the creation of DOT Drainage ROW Access Plan Sheets using Civil3D.
- My Contributions have saved the company hundreds of thousands of dollars so far and most importantly help keep people safe on the job.

Utah Tech University

3U CubeSat: Communications Mechanical Engineer

August 2024 - May 2025
St. George, UT

- Worked in an Interdisciplinary Group of 4 on creating a reliable Uplink/Downlink Communication System for our CubeSat.
- Specialized in R&D, Mechanical Design, CAD, and Manufacturing all the Mechanical Components on the Antenna Module.
 - Completed under the allocated budget of \$500.
 - Maintained tight tolerances of 0.001".
 - Delivered functional parallel deployment system.

Brightline West

Summer Associate; Intern

May 2023 - July 2023; June 2024 - July 2024
Las Vegas, NV

- Worked with the Design of Infrastructure and Civil Team on a High Speed Train Network.
 - Created a Technical Document about the training of key personnel using the Code of Federal Regulations.
 - Assisted in optimizing platform design for performance and safety.
 - Configured strategic positions for layout of transmission lines along the corridor.
- Procured a detailed Hazard Log Analysis of Operations and Management Risk for Passengers and Staff.
 - Used a Risk Assessment Matrix to evaluate and prioritize risks.
- Reviewed Certain Criteria from Engineering Drawings of the Track and Highway
 - Ensured proper minimum clearances, alignment, and geometry.

Skills

Computer Aided Design (CAD) & Manufacturing (CAM) Software

AutoCAD, OnShape, SolidWorks, Civil 3D, FreeCAD, Autodesk Fusion, Bluebeam

Finite Element Analysis (FEA) Software

ANSYS Workbench, Simcenter Femap with Nastran

Fabrication/Manufacturing

CNC Machining/Operations, Laser Cutting, Waterjet, 3D Printing, Manual Mill, Manual Lathe

Programming

MATLAB, Arduino, C++

Microsoft Office Suite

Excel, Word, PowerPoint, Teams, Visio

Interdisciplinary Collaboration

Followed Codes/Regulations

MIL-STD-461F, ASCE 7-16, NASA-STD-6016, HIPAA Compliance, ANSI HE75:2009, FDA Guidelines, IP Ratings

Past Projects

Electronic Motor Boat

January 2024 - April 2024

Propulsion Mechanical Engineer

St. George, UT

- Collaborated in a group of 5.
- Tasked with creating the Propulsion System (Propeller & Rudder) using Fluid Mechanics, Finite Element Analysis, and Machinery.
- Achieved about 218.62 N of Thrust Force on the Propeller.

Arcade Game

January 2023 - April 2023

Mechanical Engineer

St. George, UT

- Collaborated in a group of 5.
- Coded with Arduino to combine states of the Arcade game, also did certain aspects of the design, 3D printing, and laser cutting.

Medical Device Innovation

August 2022 - May 2024

Research & Development Scholar

St. George, UT

- Participated in the National Science Foundation (NSF) funded INSPIRE program.
 - Collaborated in an Interdisciplinary group on creating a Proprietary Wearable Medical Device.
- Used CAD, Coding, and Prototyping to create an innovative solution to help knee reconstruction surgery patients.
 - Goal: Promote a faster recovery time.
 - Ensured accurate measurements down to the 0.01°.

Mini Electronic Golf Course

January 2022 - April 2022

Mechanical Engineer

St. George, UT

- Used a Laser Trip to Ignite a Fog Machine using Arduino to Code.
- Collaborated and worked within a group of 6.

Interests

Weightlifting

Product Creation

Nikola Tesla

Traveling