# Adam DiMaio

Mechanical Engineer

⊚ United States & +1 (702) 954-2032 @ adam.dimaio@outlook.com ⊘ https://www.adamamerican.com 🔚 Adam DiMaio

Summary

I am a graduating Mechanical Engineer (May 2025) with expertise in Mechanical Design, FEA, CAD, and Manufacturing, seeking a role to apply my technical skills and problem-solving mindset to solve real-world challenges.

Education

**Utah Tech University** 

Mechanical Engineering, BS

August 2021 - May 2025

**Current Projects** 

3U CubeSat

August 2024 - May 2025

- Currently working in a team of 4 on the Communications Team of the CubeSat
- Responsible for parts of the Antenna Module Design, parts of the Earth Station Design, FCC Regulations, Manufacturing Components/Plans

## Professional Experience Brightline West

Intern

June 2024 - July 2024

Las Vegas, NV

- Researched, Analyzed, and Translated Technical Knowledge and Key Points of the Code of Federal Regulations (CFR) for a White Paper Document.
- Created a detailed Hazard Log Analysis of Operations and Management Risk for Passengers and Staff During the Operational Phase of the High-Speed Railway.
- Collaborated in the Creation of a Contractor Integration Matrix that represented the Interface Control Documents between Contractors.
- Reviewed Certain Criteria from Engineering Drawings of the Track and Highway to Determine and Mitigate Associated Risks.

**Brightline West** 

May 2023 - July 2023

Summer Associate

Las Vegas, NV

- Worked with the Design of Infrastructure Team on the pioneering project of introducing the first High-Speed Train system in the United States.
- Worked alongside Rolling Stock, Systems, and Maintenance Engineers to ensure a comprehensive project approach.
- Assisted Rolling Stock Engineer in optimizing platform design, train dimensions, and layout for optimal performance and safety.
- Collaborated with Systems Engineers to strategically position substations and design the layout of transmission lines for efficient power distribution.
- Produced a comprehensive document outlining the Rail Neutral Temperature, a critical factor for the Maintenance of Way Engineer in ensuring safe and reliable railway maintenance.
- Developed a Train Simulation Document utilizing Microsoft Excel to visually illustrate train departure and arrival times, optimizing the scheduling and operation of the high-speed trains.

## **Utah Tech University**

August 2022 - May 2024

Research & Development Scholar

St George, UT

- Participated in the National Science Foundation funded INSPIRE program, which creates opportunities for students to solve real-world problems in small, interdisciplinary groups.
- Worked within a group consisting of two Biology Majors and a Computer Science Major on creating a Proprietary Wearable Medical Device.
- Used CAD, Coding, and Prototyping to create an innovative solution to help knee reconstruction surgery patients try and regain full range of motion faster.

#### Certifications

## FE Mechanical Exam

February 2025

NCEES **⊘** Badge

#### Skills

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

••••

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

#### 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, IP65

## **Past Projects**

## **Electronic Motor Boat**

Jan - Apr 2024

Paddle Prodigies

- Collaborated in a group of 5 (4 Mechanical and 1 Electrical Engineering Students)
- 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 Jan - Apr 2023

**Excalibur** 

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

#### Mini Electronic Golf Course

Jan - Apr 2022

National Parks

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

#### **Interests**

## Weightlifting

**Product Creation** 

Nikola Tesla

Traveling