# Samuel M. Piedmonte

#### Portfolio & LinkedIn

<u>sam-piedmonte.engineer</u> www.linkedin.com/in/smp6773 smpiedmonte@gmail.com (540) 229-1373

**EDUCATION** Bachelor of Science in Mechanical Engineering

Engineering Leadership Development Minor Graduated
The College of Science and Engineering December 2023
The Pennsylvania State University, University Park, PA GPA: 3.31/4.00

## WORK Mechanical Engineer I

## **EXPERIENCE**

General Dynamics Electric Boat, New London CT (December 2023 - Current) (Secret Clearance)

- Completed complex calculations including force analysis, kinematics, and vibrations to ensure systems comply with standards.
- Managed and organized large-scale discussions to integrate multiple complex systems and ensure functionality.
- Completed comprehensive technical documentation.

#### **Mechanical Engineering Intern**

**Peraton**, Princess Anne MD (June 2023-August 2023)

- Designed and retrofitted testing fixtures and parts for a next generation rocket including fins, skins, and separation systems.
- Devised 6 sets of constraints and tests for constraints including force analysis and advanced kinematics to test for allowable flight.

## **Mechanical Engineering Intern**

Bechamo, Buffalo NY (Dec 2022-May 2023)

- Designed, built, and tested aircraft with functioning moving surfaces to physically represent emulation code.
- Fabricated, assembled, and verified multi-degree of freedom motor rotating system using additive manufacturing.

#### **PROJECTS**

- Capstone Prototyped, built, and tested 6 DOF robotic arms to automate assembly.
- ACRP Challenge Designed and analyzed novel runway excursion prevention device.
- Engineering Design Prototyped, coded, and 3D printed fully functional smart cup.
- Entrepreneurship Created custom neon sign business to generate over \$500/week of income.

SKILLS	Engineering Design & Graphics	Finate Element Analysi	S

Thermodynamics, Fluid Dynamics, Heat Transfer	Statics, Dynamics, Solids
Modeling Dynamic Systems, Mechanism design	Vibration Mechanics
Engineering Leadership, Project Management	Circuits, Mechatronics

### **SOFTWARE** SolidWorks, SolidWorks Simulations, AutoCAD, NX

MATLAB, Arduino, C#, Python Programming languages

LEADERSHIP	Peer Partnership Program	2022-2023
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Engineering leadership Society	2021-2023
Vice President Sigma Tau Gamma Fraternity	2021-2022
Recipient, Boy Scouts of America Eagle Scout Rank	2020