Portfolio sam-piedmonte.me

Samuel M. Piedmonte

smpied monte@gmail.com www.linked (540) 229-1373

www.linkedin.com/in/smp6773

LinkedIn

OBJECTIVE

Contribute innovative engineering solutions with the ultimate goal of developing systems to ease access to space.

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: 3.34/4.00

WORK EXPERIENCE

Mechanical Engineer I

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

- Cognizant engineer of three complete systems.
- 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 six 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.

SKILLS	Engineering Design & Graphics	Finate Element Analysis	
	Thermodynamics, Fluid Dynamics, Heat Transfer	Statics, Dynamics, Solids	
	Modeling Dynamic Systems, Mechanism design	Vibration Mechanics	
	Engineering Leadership, Project Management	Circuits, Mechatronics	
SOFTWADE	SolidWorks SolidWorks Simulations (FEA CED) AutoCAD NV Toom contar		

SOFTWARE SolidWorks, SolidWorks Simulations (FEA CFD), AutoCAD, NX, Team center MATLAB, Arduino, C#, Python Programming languages

LEADERSHIP	Peer Partnership Program	2022-2023

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Engineering Leadership Society	2021-2023
Recipient, Boy Scouts of America Eagle Scout Rank	2020