**Maxwell Frampton**

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**EDUCATION:**

**The University of Alabama**

*Tuscaloosa, Alabama*

**Bachelor of Science in Aerospace Engineering** **May 2023**

Undergraduate GPA: 3.5/4.0 Honors: Cum Laude

**SKILLS:**

**Foreign Languages**: Fluent in speaking, reading, and writing in Spanish

**Technical Skills**: Adobe InDesign, Illustrator, DreamWeaver, Microsoft Excel, SolidWorks, Fusion 360, Additive Manufacturing, Wolfram Mathematica, Patran, Nastran

**Programming** **Languages:** C++, Python, SQL, MATLAB, Wolfram Language, HTML, CSS

**Scripting Languages:** Bash, Zsh

**Version Control:** Git

**WORK EXPERIENCE:**

*Aerospace Engineer,* **United States Air Force,** Hill AFB, Utah **Aug 2023– Present**

* Designed and developed quadcopter and other drones in a non-classified environment
* Write software drivers in Python and C++ to integrate a 360-degree LiDAR scanner with a flight controller
* Write a Simultaneous Localization and Mapping (SLAM) algorithm to process point-cloud data using machine learning (ML)

**PROJECT WORK:**

*Senior Project Team CFO,* **Team Icarus, The University of Alabama, Aug 2022 – May 2023**

Tuscaloosa, Alabama

* Designed, modeled, and fabricated a prototype thermal control system for use in a CubeSat satellite
* Prepared and adhered to a budget for all expenses related to the execution of the project
* Created and maintained a Master Equipment List (MEL) containing information for each component of the system, including part number, safety information, and itemized budget statement
* Prepared and submitted purchase order request forms, working closely with University employees
* Communicated with individuals in various University departments professionally and courteously

*Liquid-fueled Rocket Development Team,* **Alabama Rocketry Association**, **Aug 2021 – May 2022**

Tuscaloosa, Alabama

* Formed a manufacturing sub-team with two other students, focusing on a stainless-steel engine case and a 3D-printed motor housing for stepper motors
* Designed and manufactured components of a liquid-fueled rocket engine and motor housing, including making technical drawings, with SolidWorks

**UNDERGRADUATE RESEARCH EXPERIENCE:**

*Research Assistant,* **Computational Imaging and Smart Structures Lab, Oct 2021 – Dec 2022**

Tuscaloosa, Alabama

* Devised and implemented cutting-edge ultrasonic imaging methods for structures, with applications in nondestructive testing
* Wrote and executed MATLAB scripts to analyze, verify, interpret, and visualize experimental data
* Contributed to a data-processing pipeline which allowed graduate researchers to perform data analysis more efficiently

**VOLUNTEER EXPERIENCE:**

*Volunteer General Secretary,* **El Salvador West/Belize Mission,** El Salvador **Nov 2018 – Jun 2019**

* Managed inventory and distributed supplies throughout El Salvador and Belize
* Created a weekly newsletter with Adobe InDesign to disseminate information throughout organization
* Oversaw training of 10-25 volunteers in various positions of leadership, developed and exercised leadership, teamwork, and communication skills