MARK J. WAGNER

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EDUCATION

Bachelor of Science in Aerospace Engineering | May 2021 | University of Florida | GPA: 3.60

- Minor in Computer and Information Science and Engineering
- Relevant Coursework: Aerodynamics, Aerospace Senior Design, Aerospace Structures, Aircraft Stability and Control, Data Structures, Design and Manufacturing Laboratory, FEA, Thermodynamics, Operating Systems

WORK EXPERIENCE

Project Engineer | Thin Metal Parts | November 2021 to Present

- Lead various projects to improve manufacturing processes in full product development cycles
- Investigate tooling and part design using CAD tools, produce drawings, and perform FEA simulations
- Perform root-cause analysis to solve manufacturing issues, such as chemical issues and tool deformations

Design and Manufacturing Lab Teaching Assistant | University of Florida | August 2019 to May 2021

- Instruct over 30 students to safely operate manual and CNC milling machines, lathes, and other equipment
- Provide technical feedback and grading on various robot design concepts, design reports in formal reviews
- Mentor new teaching assistants in machine operation, design for manufacturability, and leadership skills

Undergraduate Researcher | University of Florida | November 2020 to May 2021

- Research for the Non-Traditional Manufacturing Laboratory, part of the Additive Manufacturing team
- Responsible for data collection, progress reports, and research summaries on independent research project

PROJECTS

Non-Traditional Manufacturing Lab Research Machine | Research Project

- Investigate surface finishing of an additively manufactured workpiece with complex geometry
- Responsible for design and manufacture of machine for needed for project, including full CAD generation
- Programmed and validated configurable motor control system using Python scripts run on Raspberry Pi

AIAA Undergraduate Design Competition | Team Project | github.com/MarkWagner99/Sabretooth

- Proposed a new austere field light attack aircraft to satisfy requirements in 2021 AIAA Request for Proposal
- Completed full analysis of aircraft structure, propulsion system, and flight performance

Aluminum Bolt-Action Pen | Personal Project | github.com/MarkWagner99/Pen

- Generated full SolidWorks models and engineering drawings, manufactured using lathe and milling machine

SKILLS & ACHIEVEMENTS

- Software Skills: SolidWorks, MATLAB, Fusion 360, FEA tools, C++, C#, Python, Java, Microsoft Office
- Engineering experience with milling machine, lathe, CNC, CAM programming, and engineering drawings
- Design experience with a focus on design for manufacturability and assembly
- Experience with data acquisition and analysis from student and research labs
- Excellent technical communication and leadership skills working with cross-disciplinary teams

INVOLVEMENT

Member | Sigma Gamma Tau Aerospace Honor Society | February 2021 to May 2021

Member | University of Florida Habitat for Humanity | September 2019 to May 2021