Maxwell Scherer

Single Scope Background Investigation (SSBI) 09/2020 – Counter-Intelligence Polygraph 06/2022 – DoD Top Secret
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WORK AND PROJECT EXPERIENCE:

Northrop Grumman Corporation

Solar Array Manufacturing Engineer **Aug 2022 – Sep 2023**

- Led manufacturing and testing efforts for Prototype 1.0, a 16 solar cell panel, designed to maximize active solar area.
- Analyzed data from thermal fatigue testing of Prototype 0.5-3 solar panel and presented conclusions to senior management.
- Developed and qual-tested new processes in solder dispensing and PSA adhesive application.
- Programmed EPSON robotic arms in SPEL+ to facilitate solder and adhesive dispensing processes.

Propulsion Design Engineer **Oct 2021 – Aug 2022**

- Designed and modeled a heat sink chamber and injector assembly in CATIA to facilitate testing and characterization of a potential engine design for the Human Lander System.
- Produced both fully dimensioned and reduced dimensioned drawings in CATIA of parts for manufacturing purposes.

Thermal Insulation Products Associate Engineer **Sep 2020 – Oct 2021**

- Coordinated and led high bay floor integration efforts of single- and multi-layer insulation for final build of the James Webb Space Telescope. Tracked the status of blanket integration and reported status daily to team and program leadership.
- Created and revised CATIA templates and models of single- and multi-layer insulation blankets for fabrication and integration efforts. Fabricated and modified multiple insulation blankets for test and flight.
- Designed, modeled, and fabricated a removable contamination travel cover for the secondary mirror of JWST.

University of Michigan AEROSP 405 – Senior Design Project **Fall 2019 – Spring 2020**

- Designed, built, and tested a heavy lift quadcopter with a payload capacity of 10 kilograms.
- Began working on a VTOL, fixed wing aircraft as a follow-up project but did not finish testing due to COVID.

Moeller Aerospace – Aerospace Industry Manufacturing

Process Engineering Co-op **Jan – Aug 2019**

- Full-time structured co-op provided experiential learning and practical work experience in aerospace manufacturing.
- Modeled 3-dimensional aircraft engine components from engineering drawings in SOLIDWORKS and created operation sheets for each step in the manufacturing process.
- Created 1:1 scale model in SOLIDWORKS of the manufacturing facilities to support rearranging the machine floor.
- Analyzed and generated statistics from data collected on the shop floor to visualize trends in non-conformities on parts.

Aerolab, LLC – Custom Wind Tunnel Manufacturing

Manufacturing Intern **May – June 2017**

- Assembled and machined multiple custom wind tunnels, from an indoor skydiving fan to a chemical filtering tunnel for the US government.
- Operated heavy machinery and fabricated in a machining shop.

Johns Hopkins University's Applied Physics Lab Student Program to Inspire, Relate & Enrich (ASPIRE)

Student Intern **Sep 2015 – June 2016**

- Applied machine learning in Python to categorize retinas based on severity of macular degeneration.

COMPUTER LANGUAGES/PROGRAMS: CATIA, CAPE, SOLIDWORKS, MATLAB, Solumina, SPEL+, Microsoft Visual Basic, StarCCM+, AGI Systems Toolkit, C++, Java, Python, Microsoft Excel, Microsoft Access

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EDUCATION: University of Michigan, Ann Arbor – Aerospace Engineering, May 2020

AWARDS & HONORS: Graduated Magna Cum Laude, Dean’s Honor List and University Honors all semesters from 2016 to 2020, Class of 1939E Scholarship and LT. Francis Brown Lowry Scholarship for Engineering, Phi Delta Theta Hiram P Holmes Scholarship