NICK TAYLOR

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LinkedIn ⋄ Github Portfolio

SKILLS & CLEARANCES

- MATLAB & Simulink
- NI LabVIEW w/ DAQ
- AFSIM
- STK (Level 1 Cert.)
- CAD (SolidWorks)
- FEA (ANSYS, Abaqus)
- 3D Printing
- Subtractive Mfg/Machining
- Python, C/C++, Arduino
- Git Version Control
- Microsoft Office, LaTeX, Windows OS
- Active TS/SCI Security Clearance

EDUCATION

Master of Engineering —— Space Operations August 2025 to TBD
University of Colorado at Colorado Springs **GPA TBD**

Master of Science —— Mechanical Engineering August 2023 to December 2024
Colorado School of Mines **3.61 Cumulative GPA**

- Dual Coursework Tracks: Robotics and Controls, Solid Mechanics

Graduate Certificate —— Space Resources January 2024 to December 2024
Colorado School of Mines **3.75 Program GPA**

Bachelor of Science —— Aerospace Engineering August 2017 to May 2022
University of Colorado at Boulder **3.20 Cumulative GPA**

- Dual Minors: Mathematics, Space Sciences

PROFESSIONAL EXPERIENCE

Scientist II January 2025 - Present
BAE Systems, Inc. —— FAST Labs R&D Merrimack, NH

Operations Research Analyst (GS-11) August 2022 to December 2024
NORAD & USNORTHCOM HQ —— J84 Analysis & Experimentation Branch Peterson SFB, CO.

- Supported homeland defense designers and planners to refine design trade spaces by providing modeling and simulation solutions using AFSIM and STK software tools.
- Coded MATLAB programs to process output data from AFSIM simulations and display analytical results.
- Analyzed and monitored large datasets of event reports in MATLAB and Python to identify significant trends and anomalies to inform experiment designers.

ACADEMIC RESEARCH

Robotics Perception & Sensing Backpack Project Team Lead October 2023 to December 2024
Autonomy, Robotics & Intelligent Algorithms (ARIA) Research Lab Colorado School of Mines

- Led a team in the design and assembly of a universal sensor backpack for SLAM robotics, incorporating LIDAR, IMU, GPS tracking and various stereo cameras on three mobile robots (Boston Dynamics Spot, Clearpath Jackal and Husky).
- Conducted three iterations of engineering design synthesis using a Systems V Model approach with trade studies, sensitivity analysis, and design reviews.
- Designed, 3D printed and installed mounting hardware for all sensors and instrumentation on the backpack using SolidWorks, a Bambu Lab X1 Carbon printer and power tools.
- Fabricated and assembled T-slot aluminum extrusion, aluminum composite sheet material and ABS panels for the sensor backpack structure using band saws and a sheet metal shear.