Nick Sheerin

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TOOLS, SKILLS & CERTIFICATIONS

Engineering Design: SolidWorks, Fusion 360, Autodesk Inventor, COMSOL, GD&T, 3D Printing, Lathe/Mill
Programming Python, MATLAB, Git, SQL, LabVIEW
Tools: Linux/Unix-like Systems, Microsoft Office Suite, Microsoft Project
Certifications: Engineer in Training (EIT) Eligible, RCCA Problem Solving

EXPERIENCE

Boeing Commercial Airplanes – Everett, WA USA   Jul 2023 – Feb 2025
Systems Engineer – Systems & Safety Integration Team
- Collaborated with cross-functional teams to certify safety-critical applications according to ARP4754/DO-254
- Designed, built and tested a detachable RFID-based baggage scanning prototype to provide a secure solution to reduce the costs related to baggage mishandling and aircraft turn time.
- Managed the execution and closure of 75 corrective actions , successfully driving closure on multiple long-term system improvements.

Honeywell Federal Manufacturing & Technologies – Albuquerque, NM USA   Jun 2022 – Aug 2022
Mechanical Engineer Intern
- Simulated the steady-state model behavior of a manufacturing plant in Python, and optimized initial conditions to identify process inefficiencies and minimize wait time.
- Designed a manufacturing tool in SolidWorks to standardize potted cable production.

Academic Center for Technology – Socorro, NM USA   Sept 2020 – May 2022
Classroom Technology Specialist
- Diagnosed and resolved a variety of technical hardware, software, and connectivity issues for hybrid classrooms.
- Installed digital media presentation hardware in hybrid classrooms.
- Instructed end-users on navigating the user interface and initial troubleshooting methods to decrease critical call volume.

NASA Jet Propulsion Laboratory – Pasadena, CA USA   Jun – Aug 2019 | Jun – Aug 2020
Physics Intern – Microwave Limb Sounder Team
- Analyzed stratospheric polar vortex warming conditions using Python, extracting and processing data from NASA's Aura satellite to identify trends in ozone depletion and temperature fluctuations.
- Created data visualization tools to highlight years with sudden warming events, improving long-term atmospheric modeling.

New Mexico Institute of Mining and Technology – Socorro, NM USA   Jun 2018 – May 2020
Atmospheric Physics Research Assistant – NMT Physics Department
- Modularized a plotting routine in Python to instantaneously pull data from NASA's Microwave Limb Sounder dataset to create a biweekly presentation in LaTeX.
- Created a climatology to identify probable years where Sudden Stratospheric Warming occurs using Python.
- Adapted Python version 2.4 scripts to Python version 3.0.
- Updated a Shell script to retrieve, analyze, and visualize data from an instantaneous pull.

EDUCATION

New Mexico Institute of Mining and Technology - Socorro, NM USA   May 2023
Bachelor of Science in Mechanical Engineering with a Minor in Mathematics   GPA: 3.3/4.0

PROJECTS

Lunabotics Integration Lead – Autonomous Mining Robot Team   Aug 2021 – May 2023
- Directed 23 people in the design integration efforts across mechanical, electrical, and software sub-teams, to develop a fully-autonomous mining robot per NASA specifications.
- Produced assembly drawings, BOMs, machining, sheet metal, and welding designs with GD&T, ensuring precise and effective testing/assembly.
- Created a MATLAB model to design a locomotive system with a safety factor to account for buckling.
- Identified high stress concentration locations using COMSOL to prevent bending