

# Nick Sheerin

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## TOOLS, SKILLS & CERTIFICATIONS

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**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

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**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's 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

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**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

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**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