First Last

Active DoD Secret Clearance
(919) 000-0000 | email@ncsu.edu | www.linkedin.com/in/your-profile

EDUCATION

North Carolina State University Raleigh, NC
- Master of Science in Mechanical Engineering Aug 2024 - Dec 2025
- Bachelor of Science in Aerospace Engineering | GPA 3.3 Aug 2021 - May 2024

PROFESSIONAL EXPERIENCE

Northrop Grumman Corporation Roy, Utah May 2024 - July 2024
Systems Engineer - Intern
- Created Interface Connecting Models at system level to drive the architecture and requirements
- Developed IRS requirements for major segment interfaces
- Developed Cameo model to describe the behavior and flow of information
- Constructed a Design Tree; gathered information from all segment levels to extract level three elements

PROJECTS (NCSU)

Senior Design Capstone Raleigh, NC Aug 2023 - May 2024
Objective: Created inflatable technology to aid in lunar research. A Ballunar tower was constructed to further communication to the dark side of the moon.
- Manufactured metals using a vertical bandsaw
- Conducted technical writing of PDRs, CDRs and VV&Ts for stakeholders and customers

Research: Coaxial Turbine Raleigh, NC Aug 2023 - May 2024
Objective: Designed hydrodynamic turbine blades rotating at different RPMs that had equal torque.
- Utilized Qblade Software to model 3 upstream and 3 downstream turbine blades
- Maximized Cp and torque by altering the blade geometry

Research: Motion Magnification Raleigh, NC May 2023 - Aug 2023
Objective: Magnified the small nuances and motions that happen in videos.
- Coded MATLAB script to spatially decompose frames in a video
- Magnified video by multiplying a bandpass of pixels by an amplification factor

Research: Schlieren System Raleigh, NC May 2022 - Dec 2022
Objective: Used camera to capture images over a wedge to obtain the Mach number behind a converging-diverging nozzle. A MATLAB code is incorporated for image processing, and wedge can slide along the table.
- CAD-modeled supports for camera, optical rails, and wedge
- Imported images into MATLAB to extract necessary angles needed to solve for the upstream Mach

TECHNICAL SKILLS

Agile: Jira, Confluence | **Computer Tools:** SolidWorks, NX, Excel, CPLM, Qblade, Cameo, DOORS, MATLAB, ANSYS

VOLUNTEER EXPERIENCE

The Shepherds Church Tech Team Cary, NC May 2019 - Dec 2021
- Mixed and Mic'd instruments for optimal sound quality in auditorium and band performances
- Operated a Venue sound board for both high school and college services, ensuring consistent audio
- Constructed fast solutions when audio experienced technical difficulties during rehearsals and church services