

GURUBELANATH “GURU” MURTHY

Flagstaff, AZ 86001 • (928) 255-7491 • gj298@nau.edu • [LinkedIn](#)

MECHANICAL ENGINEER

EMPHASIS: SOLIDWORKS, MATLAB, MECHANICAL DESIGN, ENGINEERING DRAWINGS

Senior Mechanical Engineering student at Northern Arizona University seeking an entry-level Mechanical Engineer opportunity. Scheduled to complete a Bachelor of Science Degree in Mechanical Engineering in May 2023. Additional professional credentials include a MATLAB Onramp Certification from MathWorks. Looking to leverage the successful completion of college coursework in Applied Mechanics Dynamics, Thermodynamics, Heat Transfer, Fluid Dynamics, and more. Dedicated leader with outstanding communication, time management, and problem-solving skills. At Northern Arizona University, served as a Lead Mechanical Design and Test Engineer for a Collegiate Wind Competition Project hosted by the U.S. Department of Energy and the National Renewable Energy Laboratory.

AREAS OF EXPERTISE

Mechanical Engineering
Engineering Drawings
CNC Machining

Computer Aided Design
Engineering Documentation
Team Leadership

SolidWorks & MATLAB
Project Management
Engineering Status Reports

EDUCATION & CERTIFICATIONS

NORTHERN ARIZONA UNIVERSITY, Flagstaff, AZ
Bachelor of Science Degree in Mechanical Engineering, Expected May 2023
Honors: Dean's List, International Excellence Award Scholarship Recipient (ABET accredited), GPA: 3.88

Relevant Coursework:

Thermodynamics | Heat Transfer | Mechanics of Materials | Applied Mechanics Dynamics | Compressible Flow
Machine Design | Renewable Energy | Fluids | Experimental Methods in Thermal Sciences

MATLAB Onramp Certification, MathWorks

MECHANICAL ENGINEERING SCHOOL PROJECTS

COLLEGIATE WIND COMPETITION CAPSTONE PROJECT

2022 – Present

Lead Mechanical Design and Test Engineer / Senior Mechanical Engineering Student

- Part of a 13-member team responsible for designing and manufacturing an offshore wind turbine as a participant in the Collegiate Wind Competition hosted by the U.S. Department of Energy and the National Renewable Energy Laboratory.
- Design an anchoring system for the wind turbine that could be installed inside the sand-containing water without excavating the sand.
- Develop new testing methods to test the stability of the anchors when installed inside the sand.
- Utilize MATLAB to develop a code that takes the data from the test and validates whether the anchoring system can withstand the thrust produced by wind.
- Collaborate with other team members to ensure the successful integration of the anchoring system into the wind turbine structure.

Key Accomplishments

- Created detailed CAD models of the anchoring system components and assemblies.
- Successfully developed a system for data acquisition and analysis of results from prototype tests.
- Developed simulation models to predict the performance of the anchoring system under various environmental conditions.
- Developed test protocols and methodology for evaluating the performance of the anchoring system.
- Successfully developed an anchoring system that could withstand a Thrust of 45 N.
- Received funding of \$3,000 from GORE and \$5,000 from the U.S. Department of Energy.

GURUBELANATH “GURU” MURTHY

Flagstaff, AZ 86001 • (928) 255-7491 • gj298@nau.edu • [LinkedIn](#)

SAE AERO REGULAR PROJECT

January 2022 – May 2022

Mechanical Engineer Team Lead / Senior Mechanical Engineer Student

- Part of a 4-member team tasked with conducting a research-based project to design a fixed wing RC aircraft.
- Served as the Team Lead responsible for advocating for the team during meetings with the client, delegating tasks, and managing the project progress.
- Researched different landing gear systems and shortlisted the ones that could be incorporated into the design.
- Utilized SolidWorks to design the landing gear.
- Updated the Gantt Chart to ensure the project remained on schedule.
- Updated the Client on the progress and gathered inputs on certain design ideas.
- Led weekly meetings with the team to check on new updates, address issues, and provide aid.
- Performed calculations to ensure the landing gear could withstand the impact upon touchdown.
- Developed a prototype of the landing gear system and tested it using weights that acted as forces.

Key Accomplishments

- Successfully designed a taildragger landing gear system that provided a high angle of attack and increased the clearance of the propellers from the ground. The landing system showed an increase in lift and a reduction in drag during prototyping and testing.
- Developed an Excel spreadsheet that calculated the different forces acting on the landing gear during taxing, loading, takeoff, and landing.
- Produced a well-written final technical report that earned an A+ grade.

EXPERIENCE

LUMBERJACK MATH CENTER (LMC), NORTHERN ARIZONA UNIVERSITY, Flagstaff, AZ January 2022 – Present

Front Desk Worker

- Provide individual assistance to students checking in and out of the LMC.
- Maintain accurate records, including headcounts, loaned materials, and lost and found items.
- Communicate LMC policies and procedures to students and guests of the LMC.

NAU CAMPUS LIVING, Flagstaff, AZ

May 2022 – August 2022

Summer Housing Assistant

- Worked scheduled shifts at residence hall front desks.
- Organized keys, name tags, and lanyards for arriving guests, incoming residents, and special group participants.
- Managed traffic flow, communicated with group leaders and guests, provided directional information, and resolved issues as needed.
- Conducted detailed team walkthroughs of every NAU residence hall to assess and report building-wide facility needs in preparation for fall opening.
- Responded to emergencies and resident needs after-hours, including evenings, weekends, and holidays.

PROFESSIONAL AFFILIATIONS

Jacks Cricket Club, Founder and President

Organized a cricket tournament with 66 participants, April 2021 – December 2022

Indian Association of Northern Arizona, Treasurer

Helped present an idea to NAU to host the 2021 Diwali event, which received \$3,900 in funding.

FOREIGN LANGUAGE & COMPUTER SKILLS

Hindi (verbal), Kannada (written), Telugu (verbal)

MATLAB, SolidWorks, System Advisory Model, Scopy, MS Office (Word, Excel, PowerPoint, Outlook), MS Teams