

Amelie Nguyen

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Experience

EnergyX – Mechanical Engineering Intern

June 2022 - Present

- Design assembly & fluid systems of a bench scale lithium-metal production process

Advantest, Essai Test Services – Quality Administrator

June 2021 - September 2021

- Assisted in part inspection utilizing precision measuring tools and coordinate measuring machines
- Coordinated with various departments to ensure timely inspection and delivery of parts
- Prepared weekly quality reports and created quality alerts to track long-term output

Activities

Texas Rocket Engineering Laboratory – Composite Manufacturing Engineer

February 2022 - Present

- Perform weekly prepreg & wet layups of airframe components for testing and tooling
- Plan procedures for FEA validation and acceptance testing of structural component

Texas Rocket Engineering Laboratory – Hotfire Technician

April 2022 - Present

- Prepare engine test stand by building fluid lines & electrical harnesses
- Check test stand connections, valves, and electronics

FSAE - Longhorn Racing Combustion Team – Vehicle Dynamics Member

September 2021 - April 2022

- Assisted in development of onboard data collection methods for suspension improvement and modeling verification

FRC 1477 Robotics – Mechanical Lead

August 2019 - June 2021

- Supervised and instructed in manufacture and assembly of team robot and related projects
- Designed, prototyped, and manufactured robot subsystems using SolidWorks

Projects

Feedback Controlled Manipulation System for Precision Positioning of Nanorod Pens

2021

UT Austin Nanomaterials Innovation Lab

- Designed 3D microelectrode nanorod for improved visibility during nanoparticle manipulation with “electric tweezers”
- 2nd place FIRE Program Contest

Developing Biodegradable Plastic from Soybean Milk Production Waste

2019

- Created bioplastic from soybean curds
- 3rd place SCI://TECH Science Fair

Skills

Software Solidworks CAD, ANSYS, CAM, Java, Microsoft Office, HTML/CSS, Export Control/ITAR Compliance

Machinery CNCs, CMM, Lathe, Drill Press, Bandsaws, 3D printers, Power Tools

Languages Vietnamese, Spanish

Interests Rock Climbing, Cooking, Cello

Education

University of Texas at Austin

Expected Graduation May 2025

Bachelor of Science, Mechanical Engineering - Engineering Honors Program

Overall GPA: 3.85

Materials Science Minor

Related Courses: Thermodynamics, Statics, Chemistry, Statistics, Differential Equations & Linear Algebra