

Mailing Address

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EDUCATION

Bachelor of Science in Aerospace Engineering

May 2027

University of Florida – Gainesville, Florida

Cumulative GPA: 4.00/4.00

Bachelor of Science in Electrical Engineering

May 2027

University of Florida – Gainesville, Florida

Cumulative GPA: 4.00/4.00

RESEARCH EXPERIENCE

NanoScape Lab

May 2024 – Present

Undergraduate Research, University of Florida – Gainesville, Florida

Advisor: Swarup Bhunia, Ph. D., University of Florida

- Use Network analyzer to characterize and design RF circuits
- Create edible NQR (Nuclear Quadrupole Resonance) coating for produce and fruit
- Portable NMR devices

Atomic Force Microscopy Lab

January 2023 – Present

Undergraduate Research, University of Florida – Gainesville, Florida

Advisor: Curtis R. Taylor, Ph. D., University of Florida

- Use contact mode, AC mode, and force microscopy to measure material properties on nano scale by using the Atomic Force Microscope (AFM)
- Research on different theories involved with measuring material properties including Sader Method, Oliver and Parr method
- Create nano-structure on Nickel-Titanium using nano-indenter module and characterize created pattern through contact and AC mode on AFM

APRILab

May 2023 – Present

Undergraduate Research, University of Florida – Gainesville, Florida

Advisor: Jane Jaejeong Shin, Ph. D., University of Florida

- Create Stanley Controller for rudder to optimize path-following of autonomous boat
- Add rudder dynamics to autonomous boat simulator to test and tune Stanley Controller
- Integrate controller to hardware through ROS and python
- Help build autonomous drones from scratch

GLaDE Lab**August 2021 – May 2022**

Undergraduate Research, University of Florida – Gainesville, Florida

Advisor: Philip B. Jackson, Ph. D., University of Florida

- Develop a comprehensive flow diagram that works as a roadmap of the educational game based on a chilled water plant to teach thermodynamics
- Research on different equipment in the water plant
- Assist in building various 3D models used in the game

RESEARCH ACTIVITIES

- ❖ Presented poster at University of Florida 25th Undergraduate Spring Symposium for “Surface Patterning of Shape Memory Alloy Thin Films” (April 2024)

TEACHING EXPERIENCE**Teaching Assistant for EEL3111C (Circuit 1)****May 2023 – August 2024**

UF Department of Electrical and Computer Engineering – Gainesville, Florida

- Facilitate lab sessions and evaluate lab reports
- Conduct office hours to assist students in comprehending circuit analysis principles and troubleshooting circuits

Physics Instructor (STEPUP29)**June 2023 – August 2023**

UF Herbert Wertheim College of Engineering – Gainesville, Florida

- Secured a graduate-level opportunity during my sophomore year as undergraduate
- Plan and lecture to incoming Freshman in tandem with Dr. Curtis Taylor
- Designed and provided solutions for homework assignments and exams

STAR Mentor (STEPUP28)**June 2022 – May 2023**

UF Herbert Wertheim College of Engineering – Gainesville, Florida

- TA for Physics and Intro to Research: graded papers, teach help sessions and discussion sessions
- Created workshops to enhance professional development for participants
- Plan and facilitate team-building activities to form lasting bonds between members

Learning Assistant for Calculus 2 (MAC 2312)**January 2022 – May 2022**

University of Florida – Gainesville, Florida

Professor: Stephen Adams, Ph. D.

- Helped students in flipped lectures to understand concepts and solve problems
- Work as a volunteer in the classroom

Upchieve Tutor**May 2021 – Present**

- Tutor students online with their problems through individual sessions
- Qualified for tutoring any elementary or secondary level math

Virtual Teach & Learn Tutor**January 2021 – May 2021**

- Paired with students and tutor them math throughout the semester
- Improved students testing grade from C to A within a month
- All students paired with me received A

INVOLVEMENT**Swamp Launch Rocket Team**

University of Florida – Gainesville, Florida

Controls Development Team**August 2023 – May 2024**

University of Florida – Gainesville, Florida

- Develop an airbrake attitude control system for High Power Rocket
- Lead the selection of electronics and the design of Printed Circuit Boards (PCBs)
- Test and characterize servo properties and its affect on control systems

Payload Electronic Team Lead**August 2022 – May 2023**

University of Florida – Gainesville, Florida

- Successfully delivered the team's first operational payload in over four years
- Designed Printed Circuit Board (PCBs) and control circuits for motor systems
- Presented regular progress reports of payload electronics to NASA
- Directed subteam meetings to promote member engagement and facilitate learning

Avonics & Recovery and Testing Team**August 2021 – May 2022**

University of Florida – Gainesville, Florida

- Designed an avionics sled that houses altimeter and battery that allows rapid assembly on scene while also lower the possibilities of mistakes

Innogator Design Team**July 2021 – December 2021**

University of Florida – Gainesville, Florida

Member of Electrical Team

- Looking for electrical components that are required to build a drone from scratch
- Trouble shoot the motor assembly of a shredder and fix it

VOLUNTEERING EXPERIENCE**Guatemala Mission Trip****March 2019**

- Travelled to remote areas of Guatemala to help local communities with necessities (food and water)
- Communicated with local children and taught them English
- Solved shortage of teaching equipment under severe time constraints

Veterans Memorial Center**August 2017 – August 2020**

- Cleaned and maintained historical artifacts
- Took care of old visitors

AWARD, DISTINCTIONS, & HONORS

- ❖ Recipient of Percival G. Brown Scholarship (\$2500), Fall 2024 – Spring 2025
- ❖ Recipient of Rhonda Holt STEPUP Scholarship (\$1000), Fall 2023
- ❖ UF Herbert Wertheim College of Engineering Dean's List, Spring 2023
- ❖ Recipient of C. Allen Ross Scholarship (UF MAE), Spring 2023
- ❖ UF Herbert Wertheim College of Engineering Dean's List, Fall 2022
- ❖ UF Herbert Wertheim College of Engineering Dean's List, Spring 2022
- ❖ Recognized as Salutatorian by GPA ranking, Class of 2021
- ❖ Awarded Outstanding Student in Dual Enrollment Statistics, 2021
- ❖ Awarded Outstanding Student in Anatomy and Physiology Honors, 2021
- ❖ Awarded Outstanding Student in English 3 Honors, was the only non-native speaker in my class, 2020
- ❖ Awarded Outstanding Student in Physics, 2020
- ❖ Awarded Outstanding Student in Dual Enrollment Calculus 1, 2020
- ❖ Awarded Certificate of Achievement from the Fleet Reserve Association's 2019 National Essay Contest
- ❖ Awarded Outstanding Student in 10th grade English, was the only non-native speaker in my class, 2019
- ❖ Outstanding awards
- ❖ Awarded Outstanding Student in Chemistry Honors, 2019
- ❖ Awarded Outstanding Student in Aerospace, 2019
- ❖ Awarded Outstanding Student in Spanish 1, 2019
- ❖ Awarded Outstanding Student in Video Production 1, 2018
- ❖ Awarded Outstanding Student in Geometry Honors, 2018

References

Available upon request