Kilian O. Olen

(954) 661-2679 | Olenk@my.erau.edu
https://kilian-olen.github.io/ | https://www.linkedin.com/in/olenk/

Research Statement

BS honors student in Aerospace Engineering and Engineering Physics at Embry-Riddle Aeronautical University, consistently honored on the Dean's List, and a dedicated tutor and research assistant. With research experience in academia and industry, and prior internship experience at Honeywell and NASA, I am eager to pursue a graduate degree with a research focus in biologically inspired robotics, particularly in novel modes of robot locomotion and manipulation.

Education

Embry-Riddle Aeronautical University, ERAU — Daytona Beach, FL
Bachelor of Science in Aerospace Engineering | Concentration: Astronautics — Anticipated May 2025
Bachelor of Science in Engineering Physics | Concentration: Spacecraft Systems — GPA: 3.72/4.00
- Minors: Applied Mathematics & Computer Aided Design/Manufacturing — Honors Program
- Academic Honors: Dean's List (All terms)

Broward College — Davie, FL
Associate of Arts in Engineering — Aug. 2020
- Academic Honors: President's List (3 terms), Dean's List (1 term) — GPA: 3.87/4.00
- Graduation Honors: Highest Honors, Robert "Bob" Elmore Honors College — Honors College

Research Experience

ERAU Space and Atmospheric Instrumentation Laboratory — Feb. 2023 – Present
Undergraduate Research Assistant to Dr. Aroh Barjatya
- Soldered and constructed multiple payloads for GPS radiosonde balloon satellite launches.
- Tested various thermistor configurations for improved data accuracy in high-altitude experiments.
- Enhanced the control and monitoring system of a spin table used in rocket boom deployment testing.
- Assisted with the deployment and monitoring of GPS receivers used to assess the launch impact SpaceX's Falcon Heavy had on ionospheric electromagnetic wave propagation.

Honeywell Aerospace & ERAU Office of Undergraduate Research — Nov. 2022 – May 2023
Electrical & Systems Engineering Research Assistant
- Volunteered for a collaborative research program aimed at optimizing the diagnosis and repair processes of malfunctioning inertial navigation systems, addressing a persistent issue at Honeywell's facility.

Relevant Professional Experience

NASA John H. Glenn Research Center — Aug. 2023 – Dec. 2023
Graphics and Visualization Lab Intern
- Designed detailed models of the X-66A, a Transonic Truss-Based Wing concept vehicle developed between Boeing and NASA under the Advanced Air Transport Technology initiative.
- Developed models and assemblies for ongoing construction efforts to facilitate the replacement of NASA's Electric Aircraft Testbed with an improved test facility.
- Served as the primary liaison for the Glenn Research Center within PAXC, an intern-led organization aimed at fostering communication and collaboration between NASA centers.
- Volunteered at numerous NASA outreach events, where I played a key role in both informing and inspiring the public about cutting-edge research and technology.

Honeywell Aerospace May 2023 – Aug. 2023

Electrical & Systems Engineering Intern

- Expanded involvement in research program by transitioning to a summer internship at the Clearwater facility.
- Maintained an integral role in the project by further refining and optimizing the design and implementation of the knowledge-based system.
- Proactively scheduled and conducted frequent meetings with site engineers and technicians, providing valuable insights into the intricacies of the manufacturing process and ensuring a seamless alignment between the system's functionality and the manufacturing requirements.
- Presented the completed model to facility leaders, highlighting a projected annual labor cost reduction of $250,000 for the eTALIN product line and establishing a framework for extending these savings to other product lines.

ERAU Academic Advancement Center Aug. 2022 – Present

Engineering & Engineering Sciences Tutor

- Provide mentorship and guidance to fellow students, actively assisting them in improving their understanding of fundamental engineering disciplines including Statics, Dynamics, Solid Mechanics, MATLAB, and Aerospace Vehicles.

Selected Honors & Awards

- Dean's List, Embry-Riddle Aeronautical University — Fall 2020 – Present
- Diamond Eagle Scholarship, Embry-Riddle Aeronautical University — Fall 2020 – Present
- Bright Futures Academic Scholarship, Florida Department of Education — Fall 2020 – Present
- First Place, NASA Space Apps Challenge (Glenn Research Center) — Fall 2023
- Visionary Scholarship, American College Foundation — Summer 2020
- President's List, Broward College — Fall 2018, Fall 2019, Spring 2020
- Commended Student, National Merit Scholarship Corporation — Fall 2019
- Dean's List, Broward College — Spring 2019

Skills

- Programming & Analysis: MATLAB, Python, C/C++, Arduino, Microsoft Excel
- Design & Simulation: CATIA V5, Autodesk Inventor, Fusion 360, Blender, Femap/Nastran
- Technical: 3D Printing, Soldering, Circuit Design, Rapid Prototyping
- Languages: English (Native), Spanish (Conversational), French (Basic Proficiency)

Extracurricular Activities

- Advanced Humanoid Robotics Laboratory — Spring 2024 – Present
- White Hat Eagles Cybersecurity Club — Fall 2021 – Spring 2022
- Robotics Association NASA Lunabotics Challenge — Fall 2020 – Spring 2021
- Game Development Club — Fall 2020 – Present

Independent Study

- R. McNeill Alexander, Principles of Animal Locomotion — Nov. 2023 – Present
- University of Michigan, Robotics OpenCourseWare — Aug. 2023 – Present
- Rice University, Introduction to Biology: Ecology, Evolution, and Biodiversity — Aug. 2023
- Northwestern University, Modern Robotics: Mechanics, Planning, and Control — Aug. 2023

References Available Upon Request