Michael Kwara

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EDUCATION

University   **Orlando, Florida**
Bachelor of Science in Mechanical Engineering   *May 2022*
- GPA: 4.0
- Relevant Coursework:
  - Thermodynamics
  - Fundamentals of Aerodynamics
  - Heat Transfer I
  - Numerical Methods
- Organizations: American Society of Mechanical Engineers, Students for the Exploration and Development of Space, Tau Beta Pi

WORK EXPERIENCE

University of Central Florida   **Orlando, Florida**
Undergraduate Learning Assistant – (Dynamics, Vibrations and Controls)   *August 2020 – August 2021*
- Worked with a team to create study guides and present live course reviews to service over 150 students and prepare them for exams.
- Monitored class discussion during lecture to identify confusion and help with the interpretation of course material.
- Collaborated with education researchers in an ongoing training to improve communication skills and enhance student learning.

Propulsion and Energy Research Laboratory (University of Central Florida)   **Orlando, Florida**
Research Assistant   *August 2020 – May 2020*
- Analyzed experimental flame stability data from research papers to fabricate a theoretical stability curve using MATLAB under different conditions.
- Experimented with preexisting burner designs to test for flame stability with acoustic disturbances to verify theoretical calculations.
- Adapted Bunsen burner design in SOLIDWORKS for use in the experimental wind tunnel to maximize heat transfer into the air cross flow.
- Upgraded experimental wind tunnel and the NI LABVIEW circuit with a new DAQ to be able to operate with more input/output signals.

LEADERSHIP EXPERIENCE

Students for the Exploration and Development of Space   **Orlando, Florida**
Liquid Bi-Propellent Rocket Engine - Combustion Team lead   *December 2020 - Present*
- Outlined the process in which the team could follow to design a combustion chamber and nozzle based on design parameters such as target altitude and thrust.
- Formulated models in MATLAB to simulate the engine under running conditions to provide information to other teams about how combustion would affect the system.
- Organized a team of 20+ members into work groups based on task difficulty and experience.
- Collaborated with other team leads implementing concepts from systems engineering to ensure efficiency and avoid over-engineering.

SKILLS & INTERESTS

Skills:
- SolidWorks CSWP Certification
- Proficient in Microsoft Office Suite
- Proficient in LabVIEW
- Proficient in MATLAB
- Familiar with Ansys Fluent
- Familiar with coding in Python and C