ALYSHA IRVIN

alysha.irvin@ucf.edu | Orlando, FL | www.linkedin.com/in/alyshairvin/

EDUCATION

University of Central Florida | Burnett Honors College *Expected May 2024*
Bachelor of Science in Mechanical Engineering, Computer Science Minor GPA: 3.77
Bachelor of Science in Biomedical Sciences
Honors/Awards: Provost Scholar, Knights of Distinction, President's Honor Roll (F'20, F'22), Dean's List (S'21, S'22, SU'22, S'23, SU'23)

SKILLS

Coursework: Fluid Mechanics, Heat Transfer, Vibrations and Controls, Computer Science 1 (C), Object Oriented Programming (Java)
Programming: JavaScript, C#, C, HTML, CSS, Python, MySQL, MATLAB, Java
Software/Frameworks: SolidWorks, LabView, Microsoft Office Suite, OpenRocket, PuTTY, Unity, React, Bootstrap
Clearance/Security: Current Security Clearance, United States Citizen

EXPERIENCE

Undergraduate Teaching Assistant, Team Leader | *University of Central Florida* Jan 2023 - Present
Courses: Heat Transfer, Honors Symposium, Solid Mechanics (Jan 2023 - May 2023)
- Collaborated with team to develop assignments with a focus on student comprehension and knowledge retention
- Developed comprehensive grading rubrics and policies for over 40 examination questions used by entire teaching assistant team
- Coordinated office hours and proctored examinations, to provide a comprehensive understanding of the material to over 600 students

X-Force Fellow | *National Security Innovation Network* June 2023 - Aug 2023
- Created documentation detailing cost-effective strategies for improving current market item designs to fit within project requirements
- Researched neutron and gamma shielding, signal attenuation, and noise reduction at cryogenic temperatures to design a custom cable
- Investigated various superconducting quantum interference devices (SQUIDs) to assess feasibility of retrofitting to project specifications
- Coordinated efforts with Naval Surface Warfare Center Crane and Department of Defense supervisors to ensure objectives were met

Undergraduate Research Assistant | *Hybrid Materials and Surface Lab at UCF* Oct 2020 - Dec 2022
- Presented findings at Florida Undergraduate Research Conference and at Student Scholar Symposium Conference
- Created 15+ clay films and performed analysis using ATR-FTIR and XPS, identifying functional groups and elements within samples
- Constructed 20+ antimicrobial hemostatic polymeric foam samples for wound care of varying siloxates and inorganics composites

Awards: UCF Student Research Grant ($1500), 2022 Student Scholar Symposium Judges Choice Award ($200)

PROJECTS

Lifeopoly: 3D Game Oct 2023 - Present
- Created a 3D game using Unity and C#, incorporating interactive user interfaces for both starting screens and in-game heads-up displays
- Implemented toggleable buttons that dynamically update with relevant information for each player throughout the game
- Utilized a route-following algorithm that coordinated with a randomized spinner mechanic to create an efficient movement system

Knight's Bow Archery Website Aug 2022 - Mar 2023
- Developed website prototype using Model-View-Controller (MVC) pattern in C# and HTML to streamline member signup process
- Implemented a SQL database to store member and admin views, enabling secure login authentication for increased view customization
- Utilized a full-stack framework using the LAMP stack, featuring implementation of Javascript, PHP, MySQL, HTML/CSS
- Successfully managed multiple connections with PuTTY and PSFTP to securely transfer program files

Mechanical Measurements Miniature Car Aug 2022 - Dec 2022
- Developed and tested a car design in SolidWorks to meet project requirements for drag, load capacity, and maneuverability
- Analyzed aerodynamic properties using a VI in LabView, resulting in increased efficiency and accuracy of engineering calculations

LEADERSHIP

President | *Honors Congress* Oct 2020 - Dec 2023
- Oversaw planning and implementation of 5+ successful recruitment events, increasing overall membership by 63.64%
- Collaborated closely with faculty members and volunteers to implement new methods of recruitment, leading to a 3-year high in signups
- Spearheaded successful membership drive that raised over $5,000 in sales through membership dues and merchandise sales
- Provided strategic direction to a team of 15 officers and 40 committee members, resulting in successful completion of team objectives

Acting President | *Tau Beta Pi: Engineering Honor Society* Mar 2022 - May 2023
- Assisted in organizing the District 5 Conference by managing registration, tours, and meals for 50+ delegates and advisors
- Developed protocols and maintained records regarding officer board decisions to provide easy communication to over 150+ individuals