

Jade Thomas

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EDUCATION

Bachelor of Science with Honors in Mechanical Engineering

Expected May 2024

Concentration in Aerospace

Bachelor of Science with Honors in Physics

Expected May 2024

Concentration in Astronomy

Minor in Nanotechnology

University of Arkansas | Fayetteville, AR

- GPA: 3.56
- National Scholar | Governor's Distinguished Scholarship | Chancellor's Scholarship

PROJECTS/RESEARCH

Effect of Surface Contact Area, Elasticity, and Adhesion Force on Friction at the Nanoscale

Research Experience for Undergraduates | National Science Foundation

May 2022 - August 2022

Mentor: Dr. Gregory Salamo, Physics Department, University of Arkansas

- Independently operated an Atomic Force Microscope to precisely measure many differently sized tips from 50 nanometers to 300 nanometers
- Created morphology, friction, and adhesion force readings of many different types of materials using an AFM

Mechanical Anemometer - Introduction to Machine Analysis

January 2022 - May 2022

University of Arkansas | Fayetteville, AR

- Designed, developed, and constructed a mechanical anemometer for extraterrestrial applications on a rover in environments that do not facilitate electronic computation
- Worked with a team of four to specify customer needs and engineering requirements, create a Pugh and House of Quality chart, and decide on a design that will fulfill all needs
- Worked as a team to create detailed sketches, CAD models, complete CAD motion analysis, and physically build the designed anemometer

Project Director – Corbitt Manufacturing Company

November 2019 - March 2020

Paragould, AR

- Planned, shot, and edited an informational video for new employees of the company
- Collaborated with a company representative in order to develop a video that would fulfill their needs

WORK EXPERIENCE

Research Assistant – Shou Research Group

August 2022 - Present

University of Arkansas | Fayetteville, AR

- Independently lead and conduct research in materials, manufacturing, and nanotechnology with applications for human exploration of space
- Assist other graduate and postdoctoral researchers with their research

Teaching Assistant – Introduction to Materials

August 2022 - Present

University of Arkansas | Fayetteville, AR

- Lead two drills a week, assisting students one-on-one and in groups with questions regarding classwork and concepts covered in the course
- Assist professor by grading submitted homework and proctoring exams

Research Experience for Undergraduates – National Science Foundation

May 2022 - August 2022

University of Arkansas | Fayetteville, AR

- Research conducted detailed in “**Projects/Research**”
- Collaborated with graduate and postdoctoral researchers to create morphological readings of their materials
- Attended a 10-week-long leadership training course provided through the program
- Produced a paper detailing the research done and presented research in front of peers, graduate students, and professors

Director of Internal Affairs – Residents’ Interhall Congress**September 2021 - May 2022**

University of Arkansas | Fayetteville, AR

- Managed and updated a \$42,000 budget
- Lead a weekly Budget Committee of approximately 10 members to assess different uses of RIC budget
- Took meeting minutes at both House and Executive meetings, presenting the budget and weekly updates at both
- Managed a roster of approximately 40 members, reaching out to those who have been absent and assigning members to committees

Resident Assistant – University Housing**August 2021 - May 2022**

University of Arkansas | Fayetteville, AR

- Developed an inclusive community among my floor of approximately 50 residents, providing them appropriate resources through bulletin boards, floor meetings, and individual interactions
- Planned and executed monthly floor events and semesterly building-wide events with over 30 attendees to foster growth in the community
- Worked 20 hours a week meeting with residents, conducting building safety rounds, managing residence hall front desks, participating in weekly staff meetings, and enforcing University Housing policies
- Mediated conflicts between residents and established open communication among roommates
- Conducted one-on-one intentional conversations with residents to evaluate their adjustment to on-campus life, determine needs that could be met by myself or other campus resources, and reported back to supervisor

Sports Broadcast Crew – Razorback Sports Network | ESPN | SEC**February 2021 - May 2021**

University of Arkansas | Fayetteville, AR

- Worked in multiple positions including operating cameras, instant replay, and managing videoboards
- Collaborated with a large team in order to successfully broadcast Razorback Sports for ESPN & SEC

MEMBERSHIP/VOLUNTEER EXPERIENCE**Member – American Institute of Aeronautics and Astronautics****November 2020 - Present**

University of Arkansas | Fayetteville, AR

Member – American Society of Mechanical Engineers**February 2021 - Present**

University of Arkansas | Fayetteville, AR

Member – Society of Physics Students**February 2021 - Present**

University of Arkansas | Fayetteville, AR

Member – Lead Hogs**August 2020 - May 2021**

University of Arkansas | Fayetteville, AR

- Worked as a team to create, plan, and operate programs for our residence hall, Hotz Hall
- Volunteered in diverse areas such as judging contests, decorating for holidays and events, and managing games

AWARDS/HONORS**FOCUS Scholar – Georgia Institute of Technology | Atlanta, GA****January 2023****Honors College Research Grant – University of Arkansas | Fayetteville, AR****December 2022****Junior Preview – University of Florida | Gainesville, FL****November 2022****National Scholar – University of Arkansas | Fayetteville, AR****May 2022****Audio Award of Excellence – Broadcast Education Association | Tuscaloosa, AL****October 2021****Excellent Short Film – International Thespian Festival | Bloomington, IN****July 2020**

SKILLS SUMMARY**MATLAB** | Proficient**Python** | Proficient**SOLIDWORKS** | Certified**PowerPoint** | Proficient**Excel** | Proficient**Word** | Proficient**Logic Pro** | Proficient**Premiere Pro** | Advanced**After Effects** | Advanced**Final Cut Pro** | Advanced