MUKESH GHIMIRE

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EDUCATION

Bachelor of Science in Mechanical Engineering Aug 2016 - May 2021
Minors: Computer Science and Mathematics
University of Mississippi
GPA: 3.98

INTERESTS & SKILLS

Interests Robotics and Controls, Mechatronics, Machine Learning, Artificial Intelligence
Skills Python, Java, C, MATLAB, Tensorflow, Solidworks, Arduino, MATLAB

EXPERIENCE

Engineering Co-op Aug 2019 - Aug 2020
Thyssenkrupp Elevator, Middleton, TN

- Assisted in 'C2D' project with the goal of standardizing elevator production.
- Developed Standard Operation Procedures (SOPs) for production processes in Traction Control, Cabs, and Signals Assembly for Hydraulic and Traction Elevators.
- Developed manufacturing prints for Configure-To-Order (CTO) offerings.
- Used data analysis techniques to reduce the data processing time by more than 50%.

Summer Research Student May 2019 - Aug 2019
Department of Mechanical Engineering, Olemiss

- Reviewed journal articles on Vortex Tube, a device that takes compressed gases and separtes into hot and cold streams known as Ranque-Hilsch Effect
- Attempted to understand the plausible reasons behind the temperature separation effect
- Established a ground-work for further research in the Department of Mechanical Engineering.

Advisors: Dr. Mike Nash, Dr. Taiho Yeom

Undergraduate Lab Assistant May 2019 - June 2019
Composite Materials Research Lab, Olemiss

- Studied the process of pultrusion in detail
- Manufactured carbon-fiber composites using several combinations of resins and epoxies provided by two renowned chemical companies.

Advisor: Dr. Ellen Lacky

LEADERSHIP AND SERVICE

STEM Camp Counselor May 2018 - July 2018
Office of the Pre-College Programs - Olemiss

- Mentored students from middle school to high school on their week-long STEM camps
- Organized camps with wide range of themes: programming, biology, game development, etc
- Performed scientific demonstrations such as: projectile motion, heat transfer, 3-D printing, concrete manufacturing and testing, etc
- Discussed a day-in-life of a STEM student so as to encourage students to purse higher education in STEM.

Supervisor: Tiffany Gray

Community Assistant Aug 2017 - May 2019

Department of Student Housing - Olemiss

- Maintained a positive living atmosphere for 50+ residents, resolving conflicts whenever necessary
- Planned and organized events promoting mental, physical, and sexual health along with stress-relieving events during finals week
- Assisted in selection and evaluation of incoming CAs.

Supervisors: Erin Parker, Anthony Calcagno

PROJECTS

DeepRacer Sep 2020 - Present

Honors Thesis

- Trained Deep Reinforcement Learning (DRL) model to run the Amazon's DeepRacer car autonomously
- Wrote reward functions for different track settings and race settings to get effective result for different types of races
- Deployed the model in the 1/18 scale model of the DeepRacer car to test in real-life scenario.

Advisor: Dr. Yixin Chen

ASME SDC: The Pick-and-Place Race Jan 2019 - May 2019

- Led a team of four to design and develop a remote controlled robot for the ASME Student Design Competition in 2019.
- Won the qualifying competition within the school to further participate in the competition.

HONORS & AWARDS

Academic Excellence Award, SMBHC Research Fund Award, Phi Kappa Phi, Tau Beta Pi