

MUKESH GHIMIRE

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EDUCATION

Bachelor of Science in Mechanical Engineering

Expected Graduation: May 2021

Minors: Computer Science and Mathematics

University of Mississippi

GPA: 3.98/4.0

EXPERIENCE

Lab Teaching Assistant (ENGR 314)

Aug 2020 - Present

Material Science Lab - Department of Mechanical Engineering, University of MS

- Helped to transition to online learning by performing demonstrations of various experiments for the lab course
- Graded lab reports of 72 students in the class.
- Assisted students in writing technical reports.

Engineering Co-op

Aug 2019 - Aug 2020

Thyssenkrupp Elevator, Middleton, TN

- Assisted in 'C2D' (Configure-To-Deliver) 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.
- Migrated drawings, specifications, and BOM's from the existing Solidworks PDM system to a PTC Windchill PLM system.

PROJECTS

Reinforcement Learning in Autonomous Racing (Honors Thesis)

Sep 2020 - Present

- Trained Deep Reinforcement Learning (DRL) models using Gazebo as a physics engine and a tensorflow back-end.
- Used python extensively to write the reward functions for different track settings and race settings.
- Deployed models in the 1/18 scale model of the DeepRacer car to test in real-life scenario.

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
- Skills used: Micro-controller programming, mechanical design, 3D modeling.

VOLUNTEER & COMMUNITY INVOLVEMENT

Poverty Simulation

April 2019

- Organized Poverty Simulation to raise awareness about poverty in the state of Mississippi

Alternative Break

March 2017

- Collaborated with Three Square Food Bank and Clean the world to pack over 1000 meals for children and recycled sanitary products discarded by lodging facilities respectively.

SKILLS

Python, Java, C, MATLAB, Tensorflow, Solidworks, Creo, Arduino, Gazebo, Git, Manufacturing, Data Analysis, 6-sigma, Windchill, Mechanical Design

HONORS & AWARDS

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