

SUDESH PATHAK

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A highly motivated and curious student with leadership and communication skills. Versatile, adaptable, and passionate student looking for internship/Co-Op to work in a team with professionals in the areas of design and manufacturing.

SKILLS

- PTC Creo, OnShape
- Autodesk Inventor, AutoCAD
- COMSOL, Abaqus CAE
- SAP2000, NI Multisim
- MATLAB, Simulink
- Arduino, Raspberry Pi
- Tableau
- Mathcad, Mathematica
- Java, Python
- HTML, JavaScript, CSS
- Microsoft Office Suite / G Suite
- Leadership, Problem Solving

RELEVANT COURSES

- Finite Element Analysis (FEA)
- Linear System and Controls
- Fluid Mechanics
- Thermodynamics
- Statics
- Intermediate Dynamics
- Introduction to Mechanical Design
- Engineering System Analysis & Design
- Advanced Engineering Mathematics
- Mechanics of Materials
- Electric Circuit Theory
- Fundamentals of Data Science
- Using Python for Research

PROJECTS

- Weather module for rocket
- Optimization of snowmobile vibration
- Analysis of washer maximum speed
- Obstacle avoiding & line tracking robots
- Crime data analysis of US States

ACTIVITIES

- Rocket Rebels
- The Gamma Beta Phi Society
- Ole Miss Robotics Club
- Nepalese Students' Association
- PULSE Leadership Conference

EDUCATION

Bachelor of Science in Mechanical Engineering

Minor: Computer Science

GPA | 3.95/4.00

The University of Mississippi

 May 2021

 Oxford, Mississippi

- Sally McDonnell Barksdale Honors College 08/2019 - Present
- Academic Excellence Award 07/2017 - Present
- Provost Scholars Program 07/2017 - Present
- Chancellor's Honor Roll 07/2017 - Present
- Phi Kappa Phi 03/2020 - Present
- Tau Beta Pi Engineering Honor Society 09/2019 - Present
- Outstanding Cambridge Learner Award 02/2014

EXPERIENCE

Undergraduate Research Assistant

Department of Mechanical Engineering at University of Mississippi

 12/2019 - Present

 Oxford, Mississippi

- Simulate and demonstrate the behavior of periodic structures under electrostatic field using COMSOL
- Compute force and stiffness parameters using numerical methods

Representative for Intercollegiate Rocket Engineering Competition (IREC)

Rocket Rebels, University of Mississippi

 08/2019 - Present

 Oxford, Mississippi

- Design rocket, fins, and aligner using Creo and OpenRocket
- Fabricate the body tube and rocket fins from Carbon Fiber
- Research and perform the shear pins, black powder, and fin flutter computations

Resident Assistant

Department of Student Housing at University of Mississippi

 08/2019 - Present

 Oxford, Mississippi

- Counsel residents regarding personal and academic concerns through interactions and educational resources
- Administer, and encourage beneficial outlets to facilitate students' self-confidence and promote interaction among students

Student Ambassador

School of Engineering at University of Mississippi

 09/2019 - Present

 Oxford, Mississippi

- Represent as an official agent and provide information regarding University of Mississippi during college events
- Develop and maintain relationships with prospective students and assist School of Engineering in student recruitment process