MIHIR GUPTA

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EDUCATION

Indian Institute of Technology, Kharagpur   *2017-2022*
B.Tech. in Manufacturing Science & Engineering
M.Tech in Industrial Systems & Management
Minor in Computer Science

Overall GPA: 7.68

PROJECTS

Digital Twin for a 2-axis Friction Stir Welding Machine   Kharagpur
Prof. Surjya K Pal   *Sep.19 - Present*

· Developed a Digital Twin solution for real time machine health monitoring, prognostics using information collected from various sensors embedded throughout the machine.
· Designing a Machine Learning model built around the data collected to provide predictions and descriptive study about the current and future state of the pats of the machine and probable signals for failures and maintenance
· Aims to reduce the cost and time involved in maintenance and repairs by 50% and complete mechanical breakdown to 0

Designing a Formula-SAE Vehicle   Kharagpur
Prof. S. K. Panda   *Aug.17 - Mar.19*

· Designed Front, Rear Suspension and Pedal box for a FSAE vehichle on DS **Solidworks** Platform and fabricated them using a combination of basic and advanced manufacturing techniques
· Devised the required roll rates of anti-roll bar and ride and roll rates of spring considering constrain on maximum allowable roll and ride during maximum possible lateral and longitudinal acceleration on an FSAE track for an increased stability of the vehicle at steeper turns

Answering questions from reading comprehension using NLP   Kharagpur
Prof. Jiaul Paik   *Feb.19- Apr.19*

· Developed a 70% accurate model to study the Stanford Question Answering Database (SQuaD) with the Natural Language Processing based Bidirectional Encoder Representations from Transformers (BERT) algorithm

INTERNSHIPS

General Motors (Technical Center India)   Bangalore, India
Business Strategy and Planning Division   *May.19 - Jul.19*

· Developed a python and excel based process flow which improved the efficiency of the team to reduce the effort of 14 days of 2 resources to 1 hr and reduced chances of error at manual intervention went down to almost 0%

Solar91 Cleantech Pvt. Ltd.   Jaipur, India
Co-founder's Office   *Jun.18*

· Performed market analysis for the opportunities available in the public and private sector to formulate the business strategy of the company
· Worked on the procurement and installation of the solar plant at SVP School, Jaipur (81KW power)

POSITION OF RESPONSIBILITY

Gopali Youth Welfare Society   Kharagpur
Web Team Head and Core Team Member   *Aug.17 - Present*

· Lead a team of 5 frontend and backend developers to revamp the society website after a span of 5 years
· Mentoring 15 freshers in Web-Development who would be a part of the future developments in the website
· Implemented online multi currency payment portal which facilitated donations from international donors and alumni

Undergraduate Council, IIT Kharagpur

Kharagpur

Web Coordinator

Sep.19 - Present

· Appointed by Dean, IIT Kharagpur as a caretaker for IIT Kharagpur website

Student Welfare Group, IIT Kharagpur

Kharagpur

Mentor- Student Mentor Program

Aug.19 - Present

· Guided 4 freshmen in the initial stage of the stay at the campus and made them familiar with academic, extra-academic activities and rules & regulations of the campus
· Conducted regular information dissemination and counselling sessions for the allotted students to keep them involved in the campus activities

TeamKART, Formula SAE Team of IIT Kharagpur

Kharagpur

Suspension, Brakes & Steering Team Member

Sep.17 - Feb.19

· Team KART was one of 12 teams out of 70 teams participating in Formula Bharat,2019 to successfully clear Technical Inspection and successfully cleared three scrutiny tests out of four and was among 7 teams to clear scrutiny in the competition
· Represented the team in Cost Report and Budget Management Event during Formula Bharat 2019 and managed Inventory for various subsystems viz. Electrical Design, Powertrain, Suspension etc.
· Designed and managed the team web-page www.teamkart.org

National Service Scheme (NSS), IIT Kharagpur

Kharagpur

Unit Leader

Aug.18 - Apr.19

· Lead a team of 72 first and second year undergraduate students for increasing awareness of hygiene and cleanliness, and completion of construction of government sanctioned toilets in tribal areas of West Medinipur district

ACHIEVEMENTS

- Participated in Formula Bharat 2019 at Kari Motor Speedway, Coimbatore
- Lead the mechanical design team for development of prototype of a Semi-Autonomous Fire Fighting Vehicle which was presented in the Inter-Hall Hardware Modelling exhibition 2019 at IIT Kharagpur.
- Awarded Best Volunteer, NSS, IIT Kharagpur
- Selected as 1 of 30 delegates from India for Harvard Program for Asian and International Relations Conference 2019
- Member of Institute of Actuaries of India
- Received distinction in various national and international level Science Olympiads

TECHNICAL STRENGTHS

Computer Languages	C++, Python, JavaScript, XHTML, CSS
Platforms	Node.js
Databases	MySQL, MongoDB
Softwares	MATLAB, Solidworks, ANSYS, 3D Experience

COURSEWORK

University Courses:	Operations Reserach, Heat Transfer, Mechanics, Dynamics, Kinematics of Machines, Mechanics of Solids, Programming and Data Structures, Machine Learning, Probability and Statistics, Educational Data Analytics,
Online Courses:	CS101(Stanford Online)