

EDUCATION

National Institute of Technology (NIT), Calicut

2020 – 2024

B.Tech. in Mechanical Engineering

- Cumulative GPA: **9.21/10.0** (Till 7th Sem); Latest Semester GPA: **9.36/10.0**

INTERNSHIP EXPERIENCE

Indian Academy of Sciences (IASc), Summer Research Fellow

May 2023 – June 2023

Guide: Dr. Susmita Dash, **Indian Institute of Science (IISc), Bengaluru**

Title: Droplet Dynamics on Heated Substrates

- Conducted the experiments involving water droplets on hot pillared surface, and capturing the dynamics using high-speed cameras
- Conducted **Image processing** in **Python** using **OpenCV** on the clip of a Leidenfrost droplet
- Gained proficiency in the principles of **image processing algorithms**: Gaussian Blur, **Canny Detector**, Thresholding, and Contouring
- Quantified the effect of increase in heat transfer from the pillars to the droplet with pillar height, by modelling the system as fins

ACHIEVEMENTS

Recipient of the prestigious Indian Academy of Sciences (IAS) Summer Research Fellowship

Mar 2023

- Selected for the highly competitive Indian Academy of Sciences Fellowship, one of the most prestigious fellowships in India

Selected for the Summer Fellowship programs at IIT Madras and IIT Kanpur

May 2023

- Selected for the IIT Madras Summer Fellowship program and the IIT Kanpur SURGE program

Department Rank 3 among 200+ students in the Mechanical Engineering Department at NIT Calicut

Dec 2023

- Standing 3rd among 200+ students in the Mechanical Engineering Department at NIT Calicut

PROJECTS

Top 3 teams among the class in the Kaggle Insurance Claim Challenge

Dec 2023

Mentor: Dr. Saketha Athkuri

- Successfully tackled Insurance Claim Prediction Challenge, employing **XGBoost** for accurate claim predictions with 73% accuracy
- Demonstrated expertise in **Data Preprocessing**, **Feature Engineering** and **Machine Learning**

Monté Carlo Simulation to estimate the real fuel cell efficiency

April 2023

Mentor: Dr. Deepak Lawrence K

- Conducted Monté Carlo simulation in **Python** to estimate the real efficiency of a fuel cell when the distribution of each variable is known

Optimization of Transportation Logistics at NIT Calicut

March 2023

Mentor: Dr. Sajan T John

- Applied linear programming techniques to solve a **transportation problem** involving two warehouses and six hostels
- Achieved **cost-effective allocation** by strategically assigning warehouses to hostels using **Excel solver**

RELEVANT COURSES

Courses with Perfect Grade : Computer Programming, Machine Learning for Data Science and Analytics, Introduction to Robotics

Online Courses: Machine Learning offered by Andrew Ng (Coursera), CS50: Introduction to Computer Science (edX)

SKILLS

Tech Stack: Data Structures and Algorithms (Proficient), SQL (Beginner)

Languages: Python (Proficient), C/C++ (Intermediate)

Python Libraries: NumPy, Pandas, Scikit-learn, OpenCV, Matplotlib

Scientific: Jupyter Notebook, VS Code, Sublime Text