

Sumit Kumar

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PROFILE

A Mechanical Engineering graduate with experience at Alvick Scientific Co. and an M.Tech in Polymer Science and Engineering from IIT Roorkee. Skilled in research and development, material testing, and simulation. Adept at working in high-tech, fast-paced environments with significant autonomy and accountability. Committed to advancing material science through innovative research and development.

PROFESSIONAL EXPERIENCE

Associate Apr 2020 – Apr 2022
Alvick Scientific Co Roorkee

- Assessed customer requirements, translating them into technical specifications and designing environmental analysis equipment.
- Incorporated various sensors for data collection, analyzed measurements, and ensured equipment functionality and durability.
- Collected, cleaned, and performed exploratory data analysis (EDA) on environmental data such as temperature, pressure, evaporation, and rainfall.
- Developed, fine-tuned, and deployed machine learning models to predict rainfall and flood risks in real-time.
- Conducted comprehensive hardware and software testing, maintained ML models to minimize prediction variance, and dispatched and installed setups at customer sites.

PROJECTS

Thesis: Development, Characterization and Optimization of Performance Structural Adhesives for Construction Tile Applications Jul 2023 – Jun 2024
IIT Roorkee

- Using iterative analysis of optimization of the design parameter of tile adhesive
- Shear testing of the sample
- Deformation testing as per IS 15477:2019

Aerodynamic Analysis of Car's Spoiler Jan 2019 – Jul 2019
Dcrust, Murthal, Sonipat

- Stability analysis through spoiler
- Designing of spoiler in solidworks
- Analysis of spoiler in ANSYS
- Drag & Lift analysis.

INTERNSHIPS

Manufacturing Jun 2017 – Jul 2017
Sona Koyo Steerings System Limited, Gurugram

- Quality management system
- Assembly line production
- Testing & Inspection
- IATF16949 guidelines
- JIS, IS, ASTM standard overview
- Auditing

EDUCATION

M.Tech Polymer Science and Engineering Jul 2022 – Jun 2024
IIT Roorkee
CGPA: 7.26

B.Tech Mechanical Engineering Jul 2015 – Jun 2019
Deenbandhu Chhotu Ram University of Science and Technology, Sonipat, Haryana
CGPA: 7.23

SKILLS

- Computer languages Python
- Software Packages Microsoft office, CAD, Solid Works, Tableau, Power bi, Origin Software (XRD, FTIR, UTM, DSC and TGA Testing)