SHARDUL SHRIKHANDE

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OBJECTIVE

Mechanical Engineer & Researcher seeking co-op & internship opportunities from May 2023

EDUCATION

University of Wisconsin-Madison
M.S. Mechanical Engineering, May 2024
Coursework: Heat Transfer, Structural & Thermal Analysis, Control System, Mechatronics in Control & Product Realization

Vellore Institute of Technology
B.Tech. Mechanical Engineering, June 2021
GPA: 8.46/10
Coursework: Thermodynamics, NDT, CAD/CAM, Fluid Mechanics, Robotics, Material Science, Statics and Dynamics

RESEARCH EXPERIENCE

Independent Study with Dr. Allison Mahvi, University of Wisconsin-Madison
Researcher, December 2022 – Present

- Numerical solutions based on effective medium theory for solidification of PCMs in fins for HVAC
- Investigate computational models for thermal energy systems, heat exchangers with phase change material

Heat Transfer Laboratory with Dr. R. Harish, Vellore Institute of Technology
Undergraduate Research Assistant, May 2018 – June 2021

- Numerical analysis of thermophysical properties to enhance heat transfer of nanofluids
- CFD and FEA simulations to diagnosed various angle spraying of duplex jets Nanocoolants in manufacturing

EXPERIENCE

Interdisciplinary Experiential Design Projects I/II, University of Wisconsin-Madison
Teaching Assistant, August 2022 – Present

- Project management of 8 senior design projects with 4 students in each project. Handle clients and project timing, product design, grading weekly progress reports and quarterly progress presentations

Wipro Ltd., Kolkata, India
Associate Consultant, July 2021 – August 2022

- Developed web pages, automate flow and software applications for Hewlett Packard customer using CRM

Myntra Designs Pvt. Ltd., Bengaluru, India
Data Analyst Intern, January 2021 - June 2021

- Built user behavior model using Random Forest ML/AI algorithm to improve acquisition, with organizing data and data visualization for statistical analysis, registering higher revenue and total acquisition of 86.9%

Reliance Industries Limited Manufacturing Division, Nagothane, India
Summer Intern, May 2019 – June 2019

- Inspection on noise, vibrations, wear, durability, and maintenance of tri lobe and twin lobe blowers used in RIL polypropylene manufacturing plant. Drafted DFMEA, DFM and DVP&R reports for rotary lobe blower components

PUBLICATION

• Joshi, Vedant, **Shardul Shrikhande**, R. Harish, A. Giridharan, and R. Mohan. 2022. "Computational Fluid Dynamics Simulation on Thermal Performance of Al/Al2O3/SWCNT Nanocoolants for Turning Operations" Nanomaterials 12, no. 19: 3508.

• Mohan, R., **Shardul Shrikhande**, Vedant Joshi, and R. Harish. 2022. "Numerical Investigation on Thermal Performance of Duplex Nanocoolant Jets in Drilling of Ti-6Al-4V Alloy" Applied Sciences 12, no. 22: 11715.

• Asabe, A., Tiwari, D., Dubey, M., Joshi, V., **Shrikhande, S.**, Mohan, R. (2021). Centralized Smart Air Purifier System for Industrial Applications. In: Kannan, R.J., Geetha, S., Sashikumar, S., Diver, C. (eds) International Virtual Conference on Industry 4.0. Lecture Notes in Electrical Engineering, vol 355. Springer, Singapore.

SHAURYA RACING, FORMULA SAE – TECHNICAL LEAD

- Supervised project execution, cost estimates, manufacturing progress (lathed parts) & collaboration of 5 cross-functional departments. Ensured documentation of design validations, reports, testing logs, prototyping & Gantt charts
- Investigation, simulation, and manufacturing of powertrain and driveline components, radiator and intercooler using ANSYS fluent and thermal analysis for FSAE applications. Diagnosed gaskets wear due to engine fluid jacket elevated temperature. Fan shroud simulation using ANSYS fluent and in-house manufacturing of fan shroud using carbon fiber composite. Improving battery life, current engineering, quality, and continuous improvement techniques
- Engine coolant pump and radiator optimization using data values from data acquisition system for run-time validation. Optimizing component based on part measurement, 3D CAD geometry, and data from data acquisition

TECHNICAL SKILLS

MATLAB| SolidWorks| ANSYS(Static, Thermal, APLD, Fluent, CFX)| LTspice| Python| SQL| MS Office| C#| C++| VBA| EES| 5S| Word| CAN| LabView| 3 D printing| Power Point| Excel| Lean Manufacturing| Six Sigma| BOM| FMEA| GNDNT