SHARDUL SHRIKHANDE

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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

LAMSML, University of Wisconsin-Madison
Graduate Research Assistant, May 2023 - Present

- Investigating heat distribution in Friction Surfacing. Understanding the process Physics observes the process and simulates it when the simulation agrees with the observation.

Advance Independent Study, University of Wisconsin-Madison
Researcher, December 2022 – May 2023

- 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, 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

Cummins Inc., Columbus, Indiana
Thermal and Fluid Systems Engineer Co-Op, June 2023 – Present

- Documenting an unambiguous test plan with clear instructions with correct calibration, overrides, and screen file. Investigate fail part impact on the overall engine and aftertreatment performance.

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%

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

- 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

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