**SHARAYU BHASME**

**Address:** Madison, WI (717) 869-9604; ssbhasme@mtu.edu

# OBJECTIVE: To obtain full time employment specialized in CFD

# EDUCATION

Michigan Technological University **M.S Mechanical Engineering** GPA**: 4.0/4.0** Aug 2016

University of Mumbai, India **B.E Mechanical Engineering** GPA: **3.9/4.0** May 2013

**INDUSTRY EXPERIENCE**

**Sr. Public Service Engineer, Public Service Commission of WI | Madison, Wisconsin** *August 2020 – Present*

* Engineering review and analysis of electric utility construction projects.
* Investigations into compliance with provisions of State statues and PSC codes.

**CAE Engineer, Alliance Laundry Systems | Ripon, Wisconsin** *July 2019 – July 2020*

* Perform airflow and thermal CFD analysis of commercial dryers/tumblers for reducing energy and drying time.
* Developed a new furnace using CFD from initial concept to design fruition to achieve 10% reduction in drying time and energy usage using SC Tetra/Cradle/MSC Software. Validated CFD results with Test data.
* Simulated Agency (UL&CL certification) Heat Rise Test. Performed Thermal CFD analysis of electronics components (drive, I/O board, heat sinks, EMI filter and transformer) on the machine back panel using SC–Stream.
* Optimization of machine back enclosure designs for better operation of the stove and electronics components.
* Perform pipe flow pressure drop calculations for laundromat installation.

**Sr. CFD Engineer, Ford Motor Company | Dearborn, Michigan** *Feb 2016**– June 2019*

* Perform full vehicle and system level thermal modelling and analyses (conduction, convection, radiation) at different thermal load conditions to determine its thermal stability using UH3D, TAITherm, STAR-CCM+
* Optimize Front-End openings of Ford and Lincoln Vehicles to enable effective performance of cooling packages (fan, radiator, condenser, charged air coolers, transmission oil coolers) for Hybrid Vehicles/ICE Vehicles/BEV Vehicles using UH3D and ANSA.
* Propose thermocouple locations to capture the thermal issues in the vehicle, co-relate CFD results with wind-tunnel data working with Test Engineers.
* Create timelines and delivery plans. Negotiate with customers based on available resources to efficiently achieve goals. Manage and train employees to accommodate them into the team.
* Research and review existing methods and designs; apply design analysis, engineering concepts, FEA process, Thermal CFD analysis, to create new effective designs and efficient methods to be used for production.

# SKILLS SUMMARY

* Superior problem-solving and time-management abilities; adept at identifying the root cause of issues and implementing innovative, targeted design solutions.
* Thorough understanding of conduction, convection, radiation.
* Proficient in design, analyses, post processing using ANSA Pre-Processor, Uh3D, RADTherm/TAITherm, STAR-CCM+, EnSight, SC- Tetra, SC- Stream.
* 1D, 2D multiphase condensing and boiling flow modelling and analyses. Expertise in COMSOL, MATLAB, EES.

**PUBLICATIONS**

* Fundamental assessments and new enabling proposals for heat transfer correlations and flow regime maps for shear driven condensers in the annular/stratified regime - *Journal of Thermal Engineering, 2015*
* [Shear-driven annular flow-boiling in millimeter-scale channels: Direct numerical simulations for convective component of the overall heat transfer coefficient](https://scholar.google.com/scholar?oi=bibs&cluster=10317971092162555540&btnI=1&hl=en) - *International Journal of Transport Phenomena, 2017*
* Shear driven suppressed nucleation annular flow-boiling in millimeter-scale channels: Direct numerical simulations, *Open Access Master's Thesis, 2016*