**Sarvesh Balakrishnamurthi**

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**SUMMARY**

A zealous individual with experience in Heat Transfer, FEA and Design of Experiments. Seeking full-time opportunities as a Mechanical Engineer starting July 2021.

**Education**

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| ­­**M.S., Mechanical Engineering (Thesis)** | Aug 2019 - Present |
| ­­Arizona State University, Tempe, AZ | ­4/4 GPA |

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| **B.E., Mechanical Engineering** | ­ June-2019 |
| ­­Amrita Vishwa Vidyapeetham, Tamil Nadu, India | ­9.52/10 GPA |

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**Technical Skills**

­**Design, Analysis and Modeling Tools:** AutoCAD, SOLIDWORKS, Ansys FLUENT, COMSOL Multiphysics, ABAQUS.

­**Programming:** C, MATLAB, Python.

**Data Analysis and Statistics:** R, JMP, Minitab , Excel.

­**Certifications:** ASU Certified Lean Six Sigma Green Belt - September 2020

**EXPERIENCE**

**Arizona State University,** *Tempe, AZ: Graduate Research Assistant* Aug 2020 - Present

* Working on the NSF funded research project “Ultrasonic Enhancement of Heat and Mass Transfer in sorption processes”.
* Modelling heat and mass transfer in sorption process in Ansys (FLUENT) by using the modified form of the governing equations obtained from extensive literature survey.

**Arizona State University,** *Tempe, AZ:**Graduate service Assistant* March 2020 - July 2020

* Contributed to developing a heat transfer model for a spray drying process.
* Assisted in conducting experiments by performing extensive literature surveys to provide background knowledge required by the experiments.

**Vasanth Foundry,** *Coimbatore, India***:** *Engineering Intern* Oct 2018 - Dec 2018

* Analyzed the performance of mono block pumps by conducting experiments and verifying the results with Performance curves.
* Carried out dimensional inspection and checked for manufacturing defects in castings.

**ACADEMIC PROJECTS**

**2-D Heat Transfer analysis using FEA, *Arizona State University*** Spring 2020

* Conducted thermal stress analysis on a semi-circular disc with an impinging heat source using FEA in MATLAB.
* Examined the effects of different types of meshing elements and mesh size on the results.
* Verified the results from MATLAB using ABAQUS.

**Turbulent models and simulation parameters in Ansys FLUENT, *Arizona State University*** Spring 2020.

* A nominally 2-D flow over a backward facing step was modelled in Ansys FLUENT using different turbulence models under three different mesh resolutions.
* Investigated the results of first-order turbulence statistics, second-order single point turbulence statistics, Turbulent kinetic energy etc. to check the efficiency of each model used.

**Feasibility study of aerospace grade ablative materials, *Arizona State University*** Spring 2020

* Evaluated and compared the heat mitigating capacity of different ablative materials used in personal protective equipment by developing a simple heat transfer model.
* COMSOL Multiphysics was used to simulate a 1-D radiation heat transfer model.

**Waste heat recovery in a Foundry (Energy management), *Arizona State University*** Fall 2019

* Determined the amount of waste heat that could be recovered from the exhaust gases in a furnace by implementing Ansys FLUENT based simulation.
* Analytically calculated the amount of electricity that could be generated from waste heat by using Thermogalvanic cells.

**Characterization of liquid column primary breakup,** ­­ ***Amrita Vishwa Vidyapeetham*** July 2018 - May 2019

* Studied the liquid (water) column instability in Rayleigh zone of primary breakup in atomization process of liquid sheets.
* Derived governing equations and coded them using MATLAB to find out the liquid sheet breakup parameters such as wavelength, frequency, and wave number.