

## **YASHAS JAYAPRAKASH**

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### **EDUCATION**

#### **Master of Science, Mechanical Engineering**

Jun 2024

San Jose State University, San Jose

#### **Bachelor of Engineering, Mechanical Engineering**

Aug 2020

PES Institute of Technology, Bangalore

### **TECHNICAL SKILLS**

Design Software: AutoCAD, CREO, Catia V5, SolidWorks, Revit

Analysis: Ansys, Carrier HAP, FEA analysis

Computer languages: Python, MS Office Tools, MATLAB

Related tools: Project Management Tools, Product Design, Product Life Cycle Management, Testing

Other skills: Team management, Time management, Problem solving, Data assimilation

### **CERTIFICATIONS**

Aug 2019 - Nov 2019

Advanced Engineering Diploma Course in Air-conditioning and Refrigeration, conducted by ISHRAE (Indian Society of Heating, Refrigeration and Airconditioning Engineers), Bangalore chapter.

### **PROJECT EXPERIENCE**

- Master's project on improving mechanical properties of alumina parts created using Ceramic On-Demand Extrusion process by minimizing defects, optimizing porosity, density, and geometrical accuracy along with plugin implementations.
- Static analysis, sensitivity study, and optimization of a domed piston head using Ansys to minimize the deformation of the piston, given a compression ratio of 9.5:1 thus achieving a 28.8% reduction in deformation.
- 3D modeling of an electric bicycle and finite elemental analysis of its various components.

### **WORK EXPERIENCE**

#### **Superior Industries, Morris, Minnesota**

May 2023 - Aug 2023

Engineering Intern, Components Engineer

- Collaborated with the components design team to develop and validate mechanical component designs using CAD software and finite element analysis tools.
- Conducted and utilized CAD software and finite element analysis tools to develop and validate mechanical component designs, failure analysis, and other static and non-static analysis ensuring the designs met performance standards.
- Contributed to a 20% performance enhancement by optimizing pulley and idler designs, considering material selection and structural integrity.

#### **KNND Associates Pvt Ltd, Bangalore, India**

Jan 2020 - Jun 2022

Projects and Sales Engineer

- Led the technical team in designing and implementing centralized HVAC&R architecture, resulting in a 15% increase in efficiency and a 20% reduction in operating costs for clients.
- Conducted energy audits on chillers, leading to a 13% reduction in energy consumption.
- Streamlined project execution, reducing costs by 9%, and ensuring 15% faster project completion without compromising quality.

### **RESEARCH PAPERS AND CONFERENCES**

- Conference presentation on "Design and fabrication of low-cost Biomass Briquetting machine and estimation of its Calorific value," presented in 2019 for the National Conference on Science, Engineering and Management (NCSEM), held in May 2019.
- Research Paper Publication in May 2018 on "Synthesis and Mechanical Properties of Araldite/Wooden Powder/Lead Oxide/PPY/PANI Composites" published in International Journal on Scientific Research in Science and Technology (IJSRST).
- Research paper accepted "Role of suspended particles in cooling a stretching film at a desired rate" for Advances and Applications in Mathematical Science, Mili publications, September 2022.