

# Yashas Jayaprakash

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## EDUCATION

### Master of Science in Mechanical Engineering

San Jose State University

Aug 2022 – Dec 2024

San Jose, California

### Bachelor of Science, Mechanical Engineering

PES Bangalore South Campus

Sep 2015 – Aug 2020

Bangalore, India

## TECHNICAL SKILLS

**Design Skills:** AutoCAD, CREO, Catia V5, SolidWorks, Revit

**Analysis Tools:** Ansys, Carrier HAP, FEA analysis

**Computer languages:** Python, MS Office Tools, MATLAB

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

## WORK EXPERIENCE

### Teaching Associate, Design & Graphics

San Jose State University

Jan 2024 – Present

San Jose, California

- Develop comprehensive lesson plans and tutorials in CAD and 3D modeling, improving student's practical skills and understanding of design principles such as GD&T.
- Facilitate hands-on lab sessions and critiques encouraging creative problem solving and increased proficiency in technical drawing and design software among undergraduate students.

### Engineering Intern, Components Engineer

Superior Industries

May 2023 – Aug 2023

Morris, MN

- Collaborated with the components design team to optimize mechanical component designs through CAD software and finite element analysis tools, resulting in a 15% reduction in material costs.
- Developed and executed failure analysis tests on mechanical components, resulting in a 15% decrease in product failures and an increase in overall product performance by 10%.
- Conducted thorough performance testing on updated pulley and idler designs, leading to a 25% increase in efficiency compared to previous models.

### Projects and Sales Engineer

KNND Associates Private Limited

Jan 2020 – Jun 2022

Bangalore, India

- Led technical team in designing and implementing centralized HVAC&R architecture, resulting in a 15% increase in efficiency and a 20% reduction in client operating costs.
- 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.

## PUBLICATIONS

- Published a research paper in May 2018 on "Synthesis and Mechanical Properties of Araldite/Wooden Powder/Lead Oxide/PPY/PANI Composites" in the International Journal on Scientific Research in Science and Technology (IJSRST).
- Published research paper on "Role of suspended particles in cooling a stretching film at a desired rate" for Advances and Applications in Mathematical Science, Mili publications, September 2022.

## PROJECTS

### Ceramic On-Demand Extrusion | San Jose State University

Aug 2023 – Present

- Led cross-functional team to develop and execute project plan aimed at enhancing mechanical properties of alumina parts. Achieved a 30% increase in overall project efficiency through effective collaboration and communication among team members.

### Piston head Optimization | San Jose State University

Sep 2022 – Dec 2022

- Accomplished a 28.8% reduction in deformation Static analysis, sensitivity study, and optimization of a domed piston head using Ansys to minimize piston deformation, given a compression ratio of 9.5:1.

### Design Project | San Jose State University

Oct 2022 – Dec 2022

- Executed design and engineering of an electric bicycle using SolidWorks, including comprehensive static analysis to evaluate the structural integrity and performance of the frame and parts.

## HONORS & AWARDS

- National Conference on Science, Engineering, and Management certification of participation. Presented a conference paper on, "Design and Fabrication of a Low-Cost Briquetting Machine and Estimating its Calorific Value."