VARAD PRAMOD LAD

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SUMMARY

Mechanical Engineering graduate student with experience in CAD design, manufacturing, project management, and supply chain management. Seeking internship opportunities starting summer 2023 in a developed and growing mechanical organization.

EDUCATION

Master of Science in Mechanical Engineering, Minor: Industrial Engineering **Graduating May 2024**
Arizona State University, Tempe, AZ, USA

Bachelor of Technology in Mechanical Engineering, Minor: Design **May 2022**
Sanjay Ghodawat University, India 3.3/4.0 GPA

TECHNICAL SKILLS

Design & Modeling Tools: CATIA V5 & V6, SolidWorks (CAD & Simulations), AutoCAD, Siemens NX (CAD), ANSYS, eQuest

Programming: Python, MATLAB

WORK EXPERIENCE

Formula Society of Automotive Engineers (F-SAE), Arizona State University: Mechanical Sub-Team **Jan 2023 – Present**

- Develop and implement a comprehensive CAD model using SOLIDWORKS to build a Formula-style race car from scratch.
- Lead design of chassis, suspension, and drivetrain within a limited budget, resulting in a 0.2-second improvement in lap time.

NASA, USA: L'SPACE Workforce Development Program Trainee **Aug 2022 – Dec 2022**

- Served as project inspector for an interdisciplinary team of 12 engineers and reviewed 6 project proposals.
- Utilized NX to create CAD design models and identified KPP (Key Performance Parameter) to optimize quantitative data.
- Engaged weekly with NASA Marshall's chief technologist, amplifying team productivity by 45%.

Chemtech System Marketing, India: Production and Supply chain Intern **Dec 2021 – May 2022**

- Led a team of 6 engineers to test automated machines and tools operated during the production process.
- Provided engineers with Excel data analysis and production supply level analysis, minimizing workload time by 45%.
- Improved quality control to decrease operational costs by 24% thereby increasing profit and supply chain efficiency.

Chemtech System Marketing, India: Testability Engineer Intern **June 2021 – Aug 2021**

- Modified the design of cane-cutting knives using SOLIDWORKS to improve the sugar cane-cutting operation by 80%.
- Addressed design challenges by reengineering the angles of cutting blades which reduced power consumption by 75%.
- Monitored a record of inventory levels, material flow, and continuous supply of cast iron channels and sections on SAP.

Menon Piston Limited, India: Production Engineer Trainee **May 2018 – June 2018**

- Tested TATA automotive piston rings and performed research on labor productivity, overall equipment effectiveness, and standardized work processes for all workstations at over 3 fast-paced advanced production facilities.

PROJECTS

Optimizing Factors & Effects in Pour-Over Coffee Brewing **Fall 2022**

- Analyzed factors and effects involved in the process of brewing pour-over coffee by Design of Experiments approach.
- Considered a 2-factor factorial design of DOE and ran an experimental design comparison using JMP software.
- Conducted pH chemical analysis of 20+ samples and taste tests survey involving 4 team members as response variables.

Adding Mister to Vapor Compression System to Improve Cooling Capacity **Fall 2022**

- Achieved a 60% reduction in power consumption and $31 cost saving per month per house through the installation of mister component to AC condenser, resulting in an energy saving of 245.8Kwh per month per house in state of Arizona.

Economical Air Filter to Trap Solid Pollutants **Spring 2022**

- Designed and developed an air filter to trap soot, solid air pollutants, and particulate matter for small-scale industries resulting in cutting down the emission of solid pollutants by 83% with a 3-way filtering technique.

Hydraulic Ram Pump **Spring 2021**

- Invented an automatic Ram pump, a hydraulic system to transport water from the source without electricity which works on the principle of water hammering, solving 40% of water supply problems in rural areas of India.

Automatic Wrapping Machine **Spring 2020**

- Designed an automatic paper wrapping machine in SolidWorks, developed, and tested 3 prototypes, and eliminated the need for physical labor by 70%, utilized an automatic pallet wrapper to increase productivity and diminish wastage by 75%.

Brick-Making Machine **Spring 2019**

- Developed a CAD model using CATIA and manufactured a press mechanism for small brick manufacturing industries resulting in a 90% reduction in manual labor.