VARAD PRAMOD LAD

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SUMMARY

Mechanical Engineering graduate student with hands-on experience in 3D CAD modeling, product design, manufacturing, production, project management, and supply chain management. Seeking internship opportunities starting summer 2023.

EDUCATION

Master of Science in Mechanical 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 and simulations), AutoCAD, CREO, Siemens NX (CAD), ANSYS, eQuest

Programming & Analysis tools: Python, MATLAB, SAP, JMP

WORK EXPERIENCE

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

- Operated as project inspector for a collaborative interdisciplinary team of 12 engineers to review 6 project proposals.
- Utilized NX to create CAD design models and identified KPP (Key Performance Parameter) to optimize quantitative data.
- Collaborated 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 analyze material used and tools operated during the production process to evaluate development.
- Improved operational processes resulting in a 15% increase in shipment efficiency and enhance productivity by 25%.
- Provided engineers with advanced 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 reduce weight by 10% and improve the cutting operation by 80%.
- Launched new cane-cutting knives by reengineering the angles of cutting blades which reduced power consumption by 75%.
- Implemented data-driven approaches to evaluate product success and provide recommendations for future product design
- 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 state-of-the-art robotics, cutting-edge technologies, and leading to the implementation of new process improvement on all workstations at over 3 fast-paced advanced production facilities.

PROJECTS

Optimizing Factors & Effects in Pour-Over Coffee Brewing with Design of Experiment Approach **Fall 2022**

- Investigated 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 taste tests survey as response variables, found that grinding beans for 16 seconds, 16:1 water-to-coffee ratio, brewing for 3 minutes at 205 Fahrenheit, blooming for 30 seconds makes a coffee desirable and robust to the subjectivity of customers.

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 a mister component to an AC condenser, resulting in an energy saving of 245.8Kwh per month per house in the state of Arizona.

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

- Designed and manufactured 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.

Automatic Packaging Machine **Spring 2020**

- Designed an automatic paper wrapping machine in SolidWorks, manufactured, and tested 3 prototypes, and eliminated the need for physical labor by 70%, utilized an automation system for pallet wrappers to increase packaging productivity by 25%, and diminished wastage by 75%.

Brick-Making Machine **Spring 2019**

- Developed a CAD model using CATIA and manufactured a Brick Making Machine for small-scale industries, reducing labor requirement from 6 workers per brick to 2 workers, saving time from 16 minutes per brick to less than 5 minutes per brick.

OTHER WORK EXPERIENCE

Arizona State University, USA: TA/GSA Grader: Statistics, System Dynamics, and Control **Sept 2022 – Present**

- Grade and evaluate 180+ undergraduate students' assignments, quizzes, and exams and hold office hours to track their progress.