SAI RAHUL GOLI

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SUMMARY

Mechanical Engineering Master's graduate with a strong background in machine design, FEA and Statistical Analysis, seeking an opportunity to enhance my analytical skills and to practice engineering in the industry by working on challenging applications.

EDUCATION

Master of Science in Mechanical Engineering - August 2018 - May 2020
 Arizona State University - Tempe, Arizona   GPA: 3.47/4.0
Bachelor of Technology in Mechanical Engineering - July 2013 - May 2017
 Koneru Lakshmaiah University - Guntur, INDIA   GPA: 3.85/4.0

WORK EXPERIENCE

Volunteer - Mechanical Engineer, EPICS – Arizona State University   June 2020 - Present
- Developing a hybrid Greenhouse-Solar Still system to deliver fresh water and food for local communities near the US-Mexico border.
- Designed a greenhouse frame, plastic modules, desalination module, P&ID and BOM using Solidworks.
- Performed numerical simulations (Structural, thermal) for solar still performance using Ansys Multiphysics.

Graduate Teaching Assistant, Arizona State University   December 2019 – May 2020
- Assisted undergraduate students of class size 110 with their machine design calculations, CAD designs, drawings (GD&T verification), and FEA Simulations using the SolidWorks and Ansys Multiphysics.

Mechanical Intern, Visakhapatnam Steel Plant, India   May – July 2015
- Operated fluid batches and process monitoring of 600TPD cryogenic distillation columns in the air separation.
- Participated in weekly training sessions such as industrial fire safety and prevention training. Acknowledged by the mentor for daily progress and demonstrating strong work ethics.

CERTIFICATIONS

- SOLIDWORKS Associate by the Dassault Systemes   (Credential ID: C-25E4MX8N9L)
- Siemens NX CAD Academic Practitioner certification   (Serial Number: Ce9swzq8r)
- Six Sigma Green Belt certification & Advanced Manufacturing Enterprise certification from SUNY Buffalo

PROJECTS

Energy conversion process development - Solar Boiler with Supplemental Hydraulic Storage
- Developed a biomimicry process to generate hydroelectricity using solar thermal energy. Designed and analyzed the thermal and pipeline systems using the Ansys and Tonatiuh solar ray tracing platform.
- Estimated the total energy efficiency, payback period, equipment, and installation costs of the process. Combining this process with the space heating has shown significant raise in efficiency for both the cycles.

Finite Element Analysis of the cooling fin performance
- Created MATLAB code to estimate the temperature and heat flux fields of the cooling fin with varying design parameters. Convergence was achieved by method of manufacturing solution for both Quad 4 & 8 Elements.
- Results from MATLAB and Ansys were correlated and found to be within a high degree of accuracy.

Full Factorial Design Experiment (DOE) for the validation of the Laser cut product quality.
- Developed a 2^3 factorial design (Power, Speed, and PPI of the laser) with a single replication using JMP.
- Identified the significant factor interactions that effecting the laser cut product quality with a 95% Confidence.

SKILLS

● SolidWorks | Solid Edge | CATIA V5 | AutoCAD ● MATLAB | Python | C Programming ● Abaqus FEA ● Ansys (structural/thermal/modal/CFD) ● GD&T | BOM | FMEA ● JMP (DOE) ● Basics of SAP and Microsoft SQL Server
● Energy Efficiency (Cost analysis and HVAC system sizing using ASHRAE standards)