Chandra Venkata Sai Bhagavan Kommu

www.linkedin.com/in/bhagavan-kommu | https://sites.google.com/view/chandrakommu/home?authuser=0| ckommu@asu.edu | 623-212-6278

SUMMARY

Manufacturing engineer with expertise in process optimization, material characterization, and automation. Proficient in 3D printing and advanced manufacturing techniques. Seeking opportunities in manufacturing, process optimization, or research and development.

EDUCATION

Master of Science **December 2025**
Arizona State University **Tempe, AZ**

- Major in Mechanical Engineering
- Major GPA: 3.28/4.00

Bachelor of Technology **June 2023**
National Institute of Technology **Manipur, India**

- Major in Mechanical Engineering
- Major GPA:3.33/4.00 Proficient in Microsoft Office Suite (i.e., Outlook, Word, Excel, PowerPoint)
- Thesis: Development and Characterization of surface-modified burr mallow fiber composite.

RELEVANT COURSES

Advanced Manufacturing Processes, CAD/CAM, Non-Traditional Machining, Manufacturing Technology I & II, Polymers and Composites, Modern Manufacturing Methods, Circular Plastics Laboratory and Modelling and Control of Robots.

SKILLS

- Software Knowledge: Auto CAD, Fusion 360, COMSOL Multiphysics, MATLAB, Python, R, ANSYS.
- Laboratory: DSC (Differential Scanning Calorimetry), TGA (Thermogravimetric Analysis), SEM (Scanning Electron Microscopy), Instron (Universal Testing Machine), Rheometer, 3D Printing, Brinell Hardness Test and Izod-Charpy Test.
- Manufacturing: CNC Programming, 3D Printing, Casting, Macro and micro fabrication.

PROJECTS

- Developed MATLAB scripts and a GUI for dynamic modeling, compliance, and impedance control, simulated system dynamics, and created visualizations for robotic motion and control performance, increasing accuracy, analysis, and system optimization.
- Executed a major project on development and characterization of surface-modified burr mallow fiber composites, demonstrated alkali-treated fiber composites exhibit superior properties compared to untreated ones, boosting material performance and applicability.
- Focusing on fabrication and characterization of porous materials, conducting comprehensive literature reviews, and drafting research papers to contribute to advancements in sustainable materials.
- Working on developing a low-cost Direct Ink Writing (DIW) printer by modifying an existing FDM printer to extrude ink-like materials such as polymer resins. Involved in altering extruder system for consistent material flow and optimizing printer control to achieve high precision and resolution.

PROFESSIONAL EXPERIENCE

Graduate Engineer Trainee **February 2022 - March 2023**
Hindustan Shipyard Ltd **Vizag, AP**

- Led a team of three in an internship on advanced machining at HSL's ship repairing complex, gaining expertise in machining technology and ship maintenance.
- Operated a lathe machine to fabricate high-precision ship components, boosting machining accuracy and efficiency by 50 %.

OTHER EXPERIENCE

Graduate Student Researcher **June 2024 - Present**
Arizona State University Organized, prompt, and self-motivated. **Tempe, Arizona**

- Conducting research on porous material fabrication and characterization as a Graduate Student Researcher under Professor Jeffrey Self, analyzing material properties and drafting research papers.
- Utilizing advanced techniques 3D printing and modeling, performing SEM analysis for microstructural characterization, and overseeing thermal and mechanical assessments using TGA, DSC, and Instron.

Graduate Service Assistant **August 2024 - December 2024**
Arizona State University **Tempe, Arizona**

- Graded assignments and recitations for CHE 211, a foundational chemical engineering course, and provided constructive feedback to enhance learning and academic success of 80 students.

ADDITIONAL INFORMATION

- Introduction to Semiconductor Packaging, Arizona State University, Jun 2024, Credential ID: LURH9DZZHUYC.
- MathWorks Certified with App Building Onramp, MathWorks, Apr 2024, Skills: App Building.
- Secured third place in videography competition held by Government of Andhra Pradesh.
- Gold medalist in 200m sprint at NIT Manipur intra-college competition.