

LITHUN REDDY ADLA

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PROFESSIONAL SUMMARY

Mechanical Engineering graduate with 2+ years of hands-on experience in custom equipment design, AutoCAD drafting, and field support. Proficient in preparing submittal, shop, isometric, and piping layout drawings for fabrication and municipal infrastructure projects. Experienced in applying NEC clearances, standard drafting practices, and BOM review in CAD workflows. Skilled communicator with a strong command of teleconferencing and documentation tools, delivering high-precision designs that meet both safety and manufacturing requirements.

EDUCATION

- **Southern Illinois University Edwardsville** Edwardsville, Illinois
Masters of Science - Mechanical Engineering; GPA: 3.2 *August 2023 - May 2025*
Courses: Drone Dynamics, Finite Element Analysis, Advanced Dynamics, Automatic Controls, Gas Dynamics, CFD
- **Geethanjali College of Engineering and Technology** Hyderabad, India
Bachelor of Technology - Mechanical Engineering; GPA: 3.5 *August 2018 - May 2022*
Courses: Thermal Engineering, Production Technology, Design of Machine elements, CAD/CAM, Fluid Mechanics.

EXPERIENCE

- **Illinois Department of Transportation (IDOT).** Effingham (District 7), IL
Engineering Intern (Full-time) *June 2024 - August 2024*
 - Updated AutoCAD technical drawings and layouts for system upgrades and field failures. Collaborated with field engineers and support staff to gather real-time feedback and implement drawing revisions.
 - Proposed adjustments to components and layouts based on safety reviews and on-site testing. Responded to real-time failures and contributed to short-term corrective actions and longer-term redesign strategies.
- **Pralaya Enterprises.** Hyderabad, India
Recycling/Mechanical Project Lead *December 2021 - August 2023*
 - Developed shop, isometric, and fabrication drawings using AutoCAD and SolidWorks, ensuring compliance with drafting standards. Interpreted construction drawings and verified BOM consistency with project specs.
 - Modified existing drawings from supervisor redlines and site photos/sketches. Trained junior technicians on CAD interpretation, manual assembly processes, and tool safety.

INTERNSHIPS

- **AUTOCAD/CATIA Intern (1Stop TECHKRITI IIT Kanpur).** September 2021 - November 2021
Designed detailed mechanical assemblies using CATIA and AutoCAD; practiced tolerance stack-ups and GD and T. Created documentation for prototype testing and manufacturing feasibility.

PROJECTS

- **Fabrication and Testing of Multiple Axis Grab and Magnetic Crane.** January 2022 - April 2022
Designed lifting tools and rotating fixtures using SolidWorks, tested for load performance and safety. Focused on tool orientation and ergonomic improvements to simplify assembly and maintenance.
- **Modelling of a Disk Brake.** September 2021 - December 2021
Used ANSYS to simulate heat dissipation and stress under dynamic conditions. Applied thermodynamics and CFD principles to improve component reliability.

SKILLS SUMMARY

- **Design and Drafting Tools::** AutoCAD, Catia, Solidworks, Nx CAD, Rivet, CREO 3D. Schematic Drafting.
- **Analysis Softwares:** Ansys, ANSYS Workbench, FEA, stress/fatigue analysis, thermal simulation.
- **Office Tools:** Microsoft Excel, Word, Outlook, PowerPoint, ERP (Syteline).
- **Mechanical Systems:** Material Selection, DFM Principles, tolerance analysis, GD and T.
- **OtherSkills:** Fabrication, Root Cause Analysis, BOM, tooling improvements.

VOLUNTEER EXPERIENCE

- **Geethanjali Student Helping Fund(GSHF)** Hyderabad, India
Providing financial help to school personnel in case of emergencies. *August 2018 - April 2022*
- **Mechanical Student Cell** Hyderabad, India
Organized events, conducted workshops. *October 2019 - April 2022*