

Ashish Kudu

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Education

Clemson University

Master of Science in Mechanical Engineering

Clemson, SC

Aug. 2025 – May 2027

University of Mumbai

Bachelors of Engineering in Mechanical Engineering

Mumbai, IN

Aug. 2018 – May 2021

Technical Skills

Design and Product Development: DFM, DFA, GD and T, Tolerance Stack-Up Analysis, Engineering Drawings, 3D Modeling and Assembly Design, Mechanical System Design, Design Validation, Material Selection, Prototype Development, Design Optimization, Cost Reduction, Design for Sustainability (DFS), Lightweight Design Strategies, Sustainable Material Selection

Tools: Excel, AutoCAD, SolidWorks, Inventor, Revit, ActCAD, BricsCAD, Minitab

Relevant Coursework: Advanced Mechanical Design, Advanced Manufacturing Processes, Engineering Optimization, Machine Design, Finite Element Analysis (FEA), Statistical Quality Control

Certifications: AutoCAD Certification - CAD Line Info-Tech, SolidWorks Certification - CAD Line Info-Tech, MATLAB Onramp - MathWorks

Experience

Mechanical JR. Design Engineer

Synergy Water Park Rides Pvt. Ltd.

Jan 2025 – June 2025

Mumbai, India

- Designed and developed 15+ mechanical components and assemblies using SolidWorks and AutoCAD, improving design turnaround time by 20% while ensuring manufacturability and cost efficiency
- Collaborated with a team of 6 engineers to implement lean layout changes, reducing assembly time by 15% and improving material flow efficiency
- Conducted performance analysis on 10+ design iterations, improving component durability by 15%
- Participated in cross-functional design reviews with 5+ stakeholders, ensuring 100% compliance with manufacturing and quality standards

Diagnostic and Maintenance intern

Ashok Leyland

Aug. 2021 – Dec. 2021

Mumbai, India

- Assisted in diagnosing 25+ mechanical failures in commercial vehicles, improving troubleshooting efficiency by 20%.
- Performed maintenance on 50+ heavy vehicles (HMV, MCV, HCV), ensuring operational reliability and reduced downtime.
- Utilized OEM diagnostic tools and service manuals to improve repair accuracy and maintenance efficiency
- Applied preventive maintenance schedules to reduce breakdowns by 15% and improve vehicle reliability.
- Coordinated with 5+ technicians to ensure proper torque, alignment, and assembly practices, improving service quality

Engineering Intern

Indian Railway

Dec 2022 – Jan 2023

Mumbai, India

- Supported reliability assessment of 20+ mechanical systems, improving maintenance documentation accuracy
- Supported engineering teams in system inspections and technical reporting for efficiency improvements.
- Gained hands-on experience in mechanical systems maintenance, documentation, and safety compliance.

Projects

Agricultural Utility Vehicle

Aug 2023 – May 2024

- Designed and fabricated a multipurpose agricultural utility vehicle with modular attachments for cultivation, grass cutting, row making.
- Performed mechanical design calculations, CAD modeling, material selection, and prototype fabrication for the chassis and implement mechanisms.
- Conducted functional testing and performance evaluation, resulting in Reduction in manual labor effort by 30% through mechanized operations.

Air Powered Car

Aug 2020 – May 2021

- Designed and fabricated a compressed-air-powered prototype vehicle, utilizing pneumatic cylinders to convert linear piston motion into wheel rotation for sustainable mobility.

- Conducted functional testing, performance evaluation, and efficiency analysis, documenting results and demonstrating zero-emission vehicle operation.
- Optimized compressed air storage, flow control, and pneumatic efficiency, ensuring smooth operation and improved vehicle performance under varying load conditions.