



Siddharthan N

E-Mail: x26siddharthann@iima.ac.in Mobile: +91 7358726587 LinkedIn: www.linkedin.com/in/siddharthann

Summary

Results-driven R&D Professional with 4.5 years of experience designing hardware tools for the heavy machinery servicing. Expert at troubleshooting complex technical problems and delivering direct-to-dealer solutions that optimize equipment uptime and productivity.

Professional Experience

Design Engineer | Caterpillar Inc | Chennai

- Preserved \$180K in annual revenue by re-engineering 150+ hardware tools, utilizing CAD modelling and structural analysis to validate missing dimensional and material data under working loads following supplier discontinuation.
- Retained \$40K in annual revenue by sourcing off-the-shelf options and evaluating technical specifications, costs, and supplier relationships to replace over 50 discontinued tools.
- Preserved \$200K and boosted OPACC, a company specific metric by preventing the scrapping of 650+ hardware tools through sales, margin, and competitor analysis to implement cost-effective stock clearance strategies.
- Sustained business continuity during a lead engineer's absence by collaborating with offshore suppliers and process partners to convert 3D CAD models to 2D drawings, achieving on-time delivery and releasing 95% error-free drawings.
- Provided senior leadership with visibility into tight project timelines by developing a tracking dashboard, which successfully monitored 200+ projects and delivered clear metrics on deadline compliance, onboarding timelines, and engineering iterations.
- Reduced flow time by 10% by streamlining service tool cancellation, deviation handling, and replacement workflows after coordinating with multiple subject matter experts and offshore suppliers.

Associate Design Engineer | Caterpillar Inc | Chennai

- Supported the design of a \$1.8M revenue-generating engine lifting tool by correcting CAD model errors for 2,000+ parts within one week to accurately calculate the centre of gravity (CG) of a 16-cylinder engine.
- Drove a projected 15% increase in sales by analysing sales trends, usage, and Catalog presence for 25+ hardware tools to onboard them into the Dealer Service Tools Catalog while highlighting unique safety features.
- Streamlined the tool lifecycle stage and reduced unnecessary inventory across Caterpillar facilities by analysing sales history, dealer demand, and duplicate functionality to eliminate approximately 100 low-demand engineering tools.
- Mitigated an identified safety risk and drove long-term corrective action by analysing 800+ documents for an engine rollover stand to pinpoint 20 critical documentation errors regarding tool usage.
- Prevented operator installation errors and mitigated fluid leakage in finished hydraulic excavators by auditing assembly workstations to isolate look-alike O-rings and proposing a distinct tool packaging strategy.

Education

BE (Mechanical Engineering) – *PSG Institute of Technology and Applied Research, Coimbatore* | India

Accomplishments and Awards

- Promoted for Exemplary Performance – Promoted from Associate to Design Engineer in the first three years.

License & Certifications

Analysis on Mechanical Behaviour of Materials, Indian Institute of Technology, Madras (Caterpillar Sponsored)
Material Science and Engineering, Indian Institute of Technology, Roorkee (NPTEL)
Excel for Business: Advanced, Macquarie University (Coursera)
In-Plant Training – TVS Motor Company, Hosur, India
In-Plant Training – Shanthi Gears Limited, Coimbatore, India

Co/Extra-curricular

- Placement Coordinator for batch of Mechanical Engineering (2017-21) at PSG Institute of Technology and Applied Research.
- Represented the school football team at the state-level ASISC tournament, competing against top regional teams.
- Collaborated within a 50-member team to execute a dual-location sapling plantation drive, planting 5,000 trees in partnership with Grow Billion Trees and Caterpillar Inc.