

MELVIN EMMANUEL THEODORE

AUTOMOTIVE ENGINEER | COMPONENT DESIGN | CAD & ENGINEERING ANALYSIS

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LinkedIn | Behance

Automotive Engineer with 5+ years of experience in automotive component design, CAD modelling, and engineering analysis. Proficient in CATIA, and SolidWorks for developing and validating mechanical components and assemblies. Experienced in automotive parts analysis, GD&T application, and cross-functional collaboration to support engineering solutions across the product lifecycle. Skilled in engineering documentation, technical validation, and design optimization for automotive systems including powertrain, suspension, and braking components. Seeking to contribute to engineering services, component development, and product lifecycle engineering in a global automotive environment.

EXPERIENCE

AUTOMOTIVE PROJECT MANAGER / SUBJECT MATTER EXPERT

TCP International, Tamil Nadu, India

(Oct 2021 to Present)

- Provided technical analysis and documentation for 100+ automotive components, supporting engineering understanding for global clients.
- Oversaw daily operations of a 30-member automotive team, ensuring all project deadlines were met efficiently and effectively.
- Managed 100+ projects for the clients FCP Euro and Advance Auto Parts, ensuring timely delivery.
- Created 50+ scripts and animation plans for automotive components for the company website.
- Analysed and generated reports for necessary updates and fixes on 400+ animations for our website.
- Maintained quality standards and conducted detailed design validations.
- Applied GD&T principles to ensure dimensional accuracy in part models and drawings.
- Collaborated with internal stakeholders to ensure cost-effective, manufacturable designs aligned with customer expectations.
- Gained exposure to mechanical system flows such as powertrain, suspension, braking, and electrical integrations.
- Shared knowledge and expertise with the entire team on the functionality of automotive components.
- Conducted research into properties and functionality of Automotive components that require animation.
- Supported engineering evaluation of automotive components, analyzing mechanical functionality and design feasibility across vehicle subsystems including suspension, braking, and drivetrain systems.

FLOOR MANAGER / AUTOMOTIVE MECHANIC

Shanthi Auto Care, Tamil Nadu, India

(Feb 2021 to Oct 2021)

- Designed and assembled automotive mechanical components and subsystems using SolidWorks, ensuring dimensional accuracy and functional integration.
- Assisted with material selection, supplier coordination, and design improvements.
- Participated in prototype testing, documenting results and proposing design refinements.
- Managed inventory of 200+ automotive parts and supplies to maintain adequate stock levels and facilitate smooth operations.
- Enhanced and maintained repair, service, and inspection records, achieving a 90% improvement through computerized documentation and reporting systems.
- Stayed updated with industry advancements through training, enhancing automotive technology & repair skills.
- Reduced costs by 60% through effective negotiation of fees for spare parts and supplies.
- Assembled mechanical components following specifications.
- Diagnosed and repaired a range of automotive systems, including engines, transmissions, brakes, and electrical components.
- Utilized computerized diagnostic equipment to pinpoint issues and recommend necessary repairs efficiently.

SKILLS

- **Engineering and Automotive Skills:** Automotive Expertise, GD&T, Script Writing, Team Management, 3D Modelling, Problem-Solving, Time Management, Project Management, Project Planning, Risk Management, Communication, Adaptability, Research & Documentation, Automotive Component Design, Engineering Problem Solving, GD&T and Tolerance Analysis, Design Validation, Mechanical System Analysis, Engineering Documentation, Product Lifecycle Support, Cross-Functional Engineering Collaboration, PLM Concept
- **Software Skills:** CATIA V5, SolidWorks, NX CAD, Abaqus (Basic), ANSYS Fluent (Basic), MATLAB, Fusion 360, AutoCAD, Microsoft PowerPoint, Microsoft Excel, Google Workspace, Teamwork PM

EDUCATION

MASTER OF SCIENCE: AUTOMOTIVE ENGINEERING

University of Leeds, Leeds, UK, 2019 - 2020

BACHELOR OF ENGINEERING: MECHANICAL ENGINEERING

CSI College of Engineering, Tamil Nadu, India, 2015 - 2019