

Mohammed Naveed

MECHANICAL TECHNOLOGIST - CAD Software, Engineering Concepts, & Lean Manufacturing

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📍 Ontario

in [LinkedIn](#)

SKILLS

- **CAD Software:** SolidWorks, CATIA, AutoCAD, Ansys, Abaqus for FEA, complex modeling, and design validation.
- **PLM & ERP Systems:** DS Enovia, SAP Business for BOM tracking, change management, and workflow automation.
- **Manufacturing Processes:** Lean systems, CNC programming, defect control, and automated production lines.
- **Quality & Compliance:** AS9100, ISO 9001, QMS audits, GD&T, tolerance analysis, and regulatory adherence.
- **Structural & Thermal Analysis:** FEA, CFD, stress studies, material behavior, and thermal load assessments.

WORK EXPERIENCE

Production Associate

March 2025 – Present

Marwood International Inc.

Ontario

- Manufactured 1200+ automotive parts per hour, sustaining 98% defect-free output by calibrating automated machinery, cross-checking tolerances, and optimizing different production cycles to maintain continuous high-speed output.
- Identified defects through in-line inspections, resolving issues by adjusting equipment parameters, coordinating with quality engineers, and implementing corrective measures to prevent delays and maintain a 98% workflow efficiency.
- Enforced safety compliance across production shifts, following OSHA guidelines, eliminating potential hazards, and aligning team operations to meet regulatory standards while ensuring zero workplace incidents over production cycles.

Public Safety Volunteer

September 2023 - September 2024

Airshow London Skydrive

Ontario

- Monitored 20,000+ attendees, enforcing structured crowd control strategies, executing evacuation protocols, and validating safety compliance to sustain a 100% incident-free environment while optimizing emergency response efficiency.
- Coordinated with US Air Force personnel, analyzing aircraft sensitivity parameters, and improving avionics instrumentation awareness, enhancing procedural accuracy by 24% for aerospace safety assessments and system diagnostics.
- Managed access control by inspecting credentials, regulating restricted zones, and mitigating unauthorized entry risks by 35%, optimizing checkpoint efficiency through strategic coordination with law enforcement and control teams.

Junior Design Engineer

July 2022 – November 2022

NOX Engineering Pvt. Ltd.

India

- Developed 200+ precise manufacturing drawings in SolidWorks and AutoCAD, ensuring dimensional accuracy for aerospace components while optimizing tolerances, and design layouts for Airbus, General Dynamics, and Boeing.
- Developed structured BOMs in ERP software, processing engineering change requests, synchronizing updates with manufacturing teams, and mitigating production inconsistencies while ensuring component integration across systems.
- Performed Finite Element Analysis on bearing assemblies, validating structural integrity, refining load distribution calculations, and ensuring design adherence to QMS standards for different aerospace performance specifications.

Space Research Intern

November 2021 – February 2022

Aero2Astro

India

- Conducted computational simulations on composite materials, optimizing material selection for cryogenic propellant tanks by 30% using stress-strain analysis and improving thermal resistance through refined structural layering.
- Designed composite testing frameworks, implementing cryogenic compatibility experiments, analyzing deformation under extreme conditions, and validating structural performance improvements by 25% through iterative evaluations.
- Interpreted test data using MATLAB, refining predictive models for composite behavior, correlating simulation for different outputs with physical stress tests, & providing optimized selection matrices for aerospace-grade tank structures.

Design Engineering Intern

April 2021 – May 2021

Ziegler Aerospace Ltd.

India

- Drafted aircraft floor panel and cabin layout designs using Autodesk and CATIA, ensuring compliance with EASA, FAA, and CARs standards while reducing drafting errors by 40% through structured design validation processes.
- Analyzed structural feasibility of components, refining CAD models for optimized weight distribution, and enhancing manufacturability by standardizing feature tolerances, reducing rework by 18% to streamline the assembly process.
- Generated revision-controlled technical documentation, integrating engineering modifications, tracking iteration history, and maintaining regulatory adherence, improving approval efficiency by 22% across aerospace certification procedures.

PROJECTS

Characterization of Supercritical Airfoils

Design & CFD Analysis Engineer

- Executed CFD simulations on existing airfoils, analyzing flow separation, turbulence, and pressure distribution to optimize supercritical airfoil design, achieving a measurable aerodynamic efficiency increase of 17.6% in baseline models.
- Allocated project tasks across a 4-member team, developing structured Gantt charts to mitigate timeline deviations, reducing workflow bottlenecks and ensuring synchronized completion of multi-phase simulations within strict deadlines.
- Published research in an AIP-recognized conference, compiling detailed performance metrics, data-driven aerodynamic insights, and comparative computational-experimental evaluations, achieving a 95% technical accuracy validation.

EDUCATION

Postgraduate Diploma in Aerospace Operations Management

January 2024 - September 2024

Fanshawe College, Ontario

Postgraduate Diploma in Applied Aerospace Manufacturing

January 2023 - September 2023

Fanshawe College, Ontario

B.Tech in Aeronautical Engineering

July 2017 - August 2021

Marri Laxman Reddy Institute of Technology, India

CERTIFICATIONS

- **Aircraft Design**, IIT Kanpur
- **Product Life Cycle Management**, TATA Technologies
- **Introduction to Airplane Performance**, IIT Kanpur
- **3D Printing Technology**, CIE, MLRIT