

Amit Kharade

MECHANICAL DESIGN ENGINEER – CAD Design, Machinery Design, 2D & 3D Drawings

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[GitHub](#)

SKILLS

- **CAD Design & Mechanical Drafting:** 2D and 3D modeling using SolidWorks, AutoCAD, and Solid Edge.
- **3D Drawings & BOM Preparation:** Generating detailed manufacturing drawings and Bills of Materials (BOM).
- **Design Verification & Quality Assurance:** Performing tolerance stack-up, GD&T, and Finite Element Analysis.
- **Industrial Manufacturing Integration:** Aligning design with machining, tooling, and production workflows.
- **Technical Documentation:** Creating CAD documentation, maintaining design standards, managing revision control.

WORK EXPERIENCE

Team Member & Baker

Tim Hortons

January 2025 – Present

Ontario

- Processed 50+ customer orders per shift, optimized workflow sequencing and product batching using time-motion principles, integrated order staging logic and buffer zones, achieving consistent order throughput increases by 15%.
- Monitored ingredient inventory daily; forecasted material usage using consumption data trends and predictive metrics, applied reorder thresholds, updated usage logs, triggered replenishment orders early to prevent 98% overall of stockouts.
- Implemented assembly line adjustments based on demand analytics, restructured prep station layout, item routing design logic to reduce service latency by 12% and enhance overall volume handling capacity during peak periods.
- Enforced quality inspection checkpoints for baked goods, measured temperature and consistency metrics at control intervals, maintained freshness standards, reduced waste by 9% overall, and ensured batch-level compliance validation.
- Documented production logs and sales counts, analyzed daily metrics reports and operational variances, advised schedule modifications to balance labor utilization by 8% overall, and improved task distribution accuracy and consistency.

Mechanical Design Engineer & Draftsman

Larsen & Toubro Heavy Engineering

December 2017 – September 2023

India

- Engineered large-scale assemblies, executed tolerance stack-up and GD&T analysis using ISO/ASME standards, optimized geometry for manufacturability, minimizing stress points and reducing fabrication cycle time by 18% overall.
- Drafted accurate 3D models and 2D drawings with AutoCAD and Solid Edge, produced comprehensive BOMs, aligned purchasing timelines, streamlined production sequencing, and ensured dimensional consistency across design variants.
- Coordinated multidisciplinary design reviews, evaluated assembly variants, validated process-driven sequence flows, analyzed mechanical fit, and diminished rework iterations by 22% overall through precision component alignment.
- Validated structural performance via Finite Element Analysis, performed defect diagnostics, enforced compliance with client specifications, assessed stress distribution and deformation patterns, increasing design acceptance rate by 26%.
- Compiled engineering reports integrating BOM matrices and verification logs, tracked revision histories, reinforced traceability and accuracy, updated configuration controls and audit trails, reducing documentation error rates by 14%.

PROJECTS

Predictive Cryptocurrency

Backend Team Member & Group Leader

GitHub

- Integrated CoinGecko API for real-time market data ingestion, enabling sub-minute price refresh intervals, improving system data reliability, and supporting comparative trend analysis across several cryptocurrencies and exchanges.
- Engineered NLP sentiment analysis pipeline parsing social data and classifying polarity, achieving accuracy exceeding 85% overall in trend detection and flagging anomaly events from user-generated financial discussions and commentaries.
- Developed ML regression models using LSTM and GRU architectures, delivering Mean Absolute Percentage Error below 3.6%, matching high industry benchmarks and ensuring stable output across Evolving test datasets and timeframes.

EDUCATION

Post-Graduation in Artificial Intelligence

Fleming College, Peterborough, Ontario

September 2024 – April 2025

Post-Graduation in Project Management

Sheridan College, Hazel McCallion Campus, Ontario

January 2024 – August 2024

Bachelor's in Mechanical Engineering

Gujarat Technological University, India

May 2013 – April 2017

CERTIFICATIONS

- Autodesk Certified Professional: AutoCAD for Design and Drafting
- Siemens Solid Edge Mechanical