

Sandeep Singh

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Cross Industry skillset CAD/CAM + Software Engineering AI | Analytical • Adaptable • Collaborative

Bringing 10+ years of mechanical design and engineering experience, blending with software development and continues improvement. Pursuing Software Engineering Technology - Artificial Intelligence at Centennial College, with hands-on projects in Software Engineering, Cloud, AI, and web development. Looking for roles where I can leverage extensive CAD CAM PLM experience by merging into software development to deliver innovative solutions.

CORE SKILLS:

- CAD/CAM Systems Expertise: Proficient in Siemens NX and PLM for template development, engineering standards library management.
- Advanced Manufacturing Knowledge: Skilled in G-code programming, NX CAM, Post Processor Optimization
- Manufacturing Process Optimization: Experienced with Lean, Six Sigma, 5S, KIEZEN, Quality Control and monitoring.
- Software & Automation Development: Hands-on with C#, Siemens NX-Open API, Software optimization for automation, 3D manufacturing for Industry 4.0 and digital transformation.
- Global Collaboration & Leadership: Strong communicator with experience mentoring Mold Designers and aligning design practices across teams.

EDUCATION:

- Centennial College - Toronto, ON
Software Engineering Technology: Artificial Intelligence 2023 - Present
Focus on: Software Engineering, Cloud infrastructure , Internet of things, Database Concepts , Java, C++ , Python, Testing & QA, Machine Learning and AI
- Sheridan College - Brampton, ON
Honors Diploma - Mechanical Engineering Technician: Design & Drafting 2017 - 2019
- Central Tool Room - Ludhiana, India
Advanced Diploma - Mechanical Engineering: Tool & Die 2009 - 2013

RELEVANT PROJECTS:

- **Digital Transformation**
 - SME for Engineering Roles during implementation of new ERP system – Microsoft Dynamics
 - Unit testing for Engineering tasks related to Tool design and development
 - Software optimization with NX OPEN and custom macros saving about 20% engineering time.
- **CNC Tooling optimization (CAM+G-Code)**
 - Led tool and process optimization to improve OEE by 15% while reducing tooling cost by 15%

- Worked closely with Tooling vendors to select optimal tooling geometry based on part materials and cutting loads
 - Established Product control and Process control documents to record and monitor production performance
- **Equipment integration & Risk mitigation**
 - Supported procurement and integration of new CNC turning center including asset validation.
 - Developed standards for setup/ Changeover procedures, Programming best practices articles.
 - Coordinated with fixtures, tooling and QA tools suppliers to ensure successful startup.

PROFESSIONAL EXPERIENCE:

- **Mold Designer** - StackTeck Systems Ltd. 3 Years
 - SME for Microsoft Dynamics implementation for digital transformation. Azure Certified
 - Designed and manufacture end to end injection mold development projects from concept to production, applying CAD, simulations, and design validations.
 - Automated design processes with NX Open (Java), reducing manual errors and improving efficiency.
- **Process Manager** - Top Quality Plastics Ltd. 5 Years
 - Managed injection molding projects, including IMM commissioning, Tooling procurement.
 - Implemented SQL, UNIX, and CAM-based tools to streamline production monitoring.
 - Lead a team of 7 production engineers while monitoring machine and resource performance
- **Related experiences :** 2 Years
 - Design and Engineering (in Inventor) for Custom machine manufacturers serving steel manufacturing industry, touched aspects of PLC optimization, Electrical Control Systems
 - Served 4 years in Automotive Forging and casting Engineering sector; including near net forming, ISO focused process control, maintaining international standards. SAP implementation.