Rajan D. Patel

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OBJECTIVE

Self-motivated and hardworking graduate with a strong passion for mechanical design, seeking a challenging opportunity in the automotive industry to showcase my design skills and contribute to innovative projects.

PROFESSIONAL SUMMARY

- Highly skilled mechanical design and engineering professional with over 4 years of experience in machinery, sheet metal, conveyor bucket elevators and HVAC.
- Proficient in part design and sheet metal work for CNC and VMC machines, ERP systems like SAP, nesting and programming for CNC machines, and general arrangement.
- Experienced in production planning and control, inventory management, and stock reporting.
- Proficient in design software including SolidWorks, AutoCAD, MS Office, and ERP SAP.
- Proven ability to understand project parameters and requirements with great attention to detail.
- Hands on experience in Inventory, Stock report, Production Planning & Control.
- Proven track record of implementing cost-effective design strategies to optimize manufacturing processes and improve overall efficiency.
- Proficient in generating detailed technical documentation, including drawings, specifications, and project reports, to support project development and implementation.
- Skilled in using SolidWorks and AutoCAD to create detailed technical drawings, specifications, nesting arrangements, bills of materials, and project reports, ensuring accuracy and efficiency in design and production workflows.

EXPERIENCE

Ag Growth International / Naperville, USA (Remote Work) Jul 2024 to Present

Assistant Engineer – AGI GPM Drafting

- Designed permanent handling components and assemblies with a focus on functionality, manufacturability, and optimization.
- Proficient in part modeling, sheet metal design, and creating complex assemblies for diverse models.
- Created detailed 2D and 3D mechanical drawings for components and assemblies using SolidWorks.
- Prepared and managed comprehensive bills of materials (BOM) for all design projects, ensuring material accuracy and compliance with requirements.
- Conducted quality checks on designs and drawings to ensure adherence to engineering standards and project specifications.
- **Developed and implemented a Design Automation system** using SolidWorks macros and parametric models for pre-defined standard parts (brackets, base frames, flanges, supports):
  - – Auto-generated 3D models, assemblies, 2D drawings, and BOMs
  - – Automated title blocks and metadata for faster documentation
  - – Reduced repetitive tasks and design cycle time by over 40%

Yantra Design / Surat — Oct 2022 to Jul 2024

Design Engineer

- Design of CNC drilling machines and laser cutting machines using SolidWorks.
- Proficient in part design and sheet metal work for CNC machines.
- Coordinated with clients to explain machine details and specifications.
- Created nesting files in AutoCAD for cutting and fabricating parts, along with generating cutting programs.
- Produced fabrication drawings and machining drawings with proper GD&T, datums, and references of mating surfaces.
- Developed casting drawings as part of the design process.
- Created bills of materials (BOM) and standard material purchase lists for manufacturing.
- Collaborated with supervisors to explain fabrication drawings and machine designs.
- Conducted project management and production planning control activities to optimize workflows and meet project deadlines.
- **Led the design of a 3-Way H-Beam CNC Drilling Machine** supporting simultaneous top,
  • bottom, and web drilling for beams up to 1500 mm × 2000 mm × 12000 mm:
    – Developed entire machine in SolidWorks with GD&T and complete 2D documentation
    – Delivered high-efficiency production output with modular, maintainable design
  • **Designed an Automatic Tool Changer (ATC) system** for BT-40 tool holders:
    – Created tool grippers, carousel, and actuator assemblies for seamless tool switching
    – Improved machining flexibility and minimized operator dependency.
  • **Engineered a full sheet metal enclosure** for a CNC machine with modular design:
    – Minimized coolant/oil leakage, enhanced machine safety, and improved aesthetics
    – Optimized for manufacturability and shop-floor integration.

Citizen Industries Privet Limited / Ahmedabad — Nov 2021 to Oct 2022

Design Engineer

- Reviewed AutoCAD drawings to determine the quantity of materials required for each AHU unit, including inner and outer materials, sections, insulation, coil materials, and additional components.
- Created indents in SAP system for items such as fans, motors, filters, and other non-standard items based on client requirements and delivery dates.
- Prepared AHU production drawings in AutoCAD after completing material summaries and forwarded them to the production supervisor to Fabrication & assembly drawings for review and implementation.
- Maintained master records of all approved designs, production drawings, and data sheets with updated revisions to ensure accuracy and compliance.
- Reviewed and updated technical specifications and standards for AHU components to meet industry regulations and client specification.

Citizen Industries Privet Limited / Ahmedabad — May 2021 to Nov 2021

Diploma Engineer Training

- Experienced in managing documents and handling blueprints, preparing reports on daily work completed by fitters.
- Skilled in operating a CNC bending machine and a CNC turret punch press machine.
- Distribute work I divide the work on the machine according to the production load and divide the man power accordingly.
- Proficient in distributing work by machine according to production load and allocating manpower accordingly.
- Coordinating with workers to provide support and maintain quality standards
- Guiding workers in production processes, safety protocols, and machinery usage.
- Capable of preparing progress reports for weekly meetings.

EDUCATION

Diploma in Engineering, Mechanical Engineering — May 2021

R.C. Technical Institute, Ahmedabad

CGPA = 8.0/10

Related Project

- **A Remote-Control Gripping Arm**, also known as an industrial robot, is a mechanical arm-like device that operates similarly to a human arm. It features multiple joints that move along specific axes or can rotate in various directions. This technology is designed to perform tasks remotely and is often used in industrial settings for automated processes.

SSC — Jun 2018

Smt. R.C. Patel Secondary and Higher Secondary School, Gandhinagar.

Pct = 71.33%

HOBBIES

- Playing Chess
- Drawing
- Puzzle Solves
- Traveling
- New Creative Activity

TRAINING

Daikin Airconditioning India Pvt Ltd, Neemrana — 11 July 2021 - 20 July 2021

- Documented system information and provided training on line production systems, including Japanese systems such as the 5S system, 4RKYT, Daily Check Sheet, Safety protocols, Hourly Report procedures, and associated benefits.

PERSONAL DETAILS

- **Full Name:** Patel Rajan Dilipkumar.
- **Gender:** Male.
- **Nationality:** Indian-Hindu K.P.
- **Date of Birth:** 15-November-2001.
- **Languages Known:** English, Gujrati, Hindi
- **Blood Group:** O +ve.
- **Permanent Address:** 4-6, Patel was, Tower rod, Kalyanpura, Ta-Kadi, Dist-Maheshana
- **Current Address:** B-22, Opera Homes, Nand sad road, Kamrej, Surat