ARJUN KUMAR S.H

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PROFILE

Masters in Mechanical Engineering (Automotive) with profound experience in manufacturing process including stamping and metal forming, tooling design and development.

CORE COMPETENCIES

- Product Development
- CNC Programming
- Project planning, tracking and reporting
- Geometric Dimension and Tolerance
- Lean Manufacturing
- Tooling design and development

TECHNICAL AND COMPUTER SKILLS

- Hands on experience in assembling dies, CNC lathe machines and mechanical testing equipment.
- Professional Experience with designing tool such as Autodesk Inventor and troubleshooting CNC lathes.
- Certified Green Belt in Lean Six sigma.

EDUCATION

- **Master of Mechanical Engineering (Automotive)** (January 2015 - April 2016)
  University of Windsor, Ontario, Canada
- **Bachelor of Technology in Mechanical Engineering** (August 2009 - June 2013)
  Bharath University, India

PROFESSIONAL EXPERIENCE

CAD Operator and Tooling Support (March 2018 – Present)
Transform Automotive, London, ON.

- Created and modified CNC programs relating to cutting tool path on lathes to improve insert life and cycle time.
- Assisted Controls engineers on diagnosing robotic malfunctions on CNC lathes and metal forming machines.
- Created specification sheets for machinery or equipment to be sent for quoting and following up with vendor until installation.
- Managed projects related to capturing SR&ED log hours by coordinating with other departments to identify elimination of wastes and KAIZEN related activities and presenting data on monthly plant meetings.
- Managed projects relating on improving the process flow of products internally by applying lean principles.
- Frequently participated in APQP and FMEA meetings relating to new product launches and developments.
- Created CAD models for developing products and detailing with specifications for both internal and external customers.
- Created and interpreted GD&T features on internal process sheets for new products.
- Re-designed existing die assembly to perform operations for both developing and existing products using Autodesk Inventor.
- Managed and generated drawings or documents associated with Engineering changes made to both products and tooling.
- Compared and studied traced layouts of machined parts to existing CAD models to identify deviations using AutoCAD.

NEC Technician – NEC metallurgical Laboratory (July 2016 – February 2018)
Nemak Canada, Windsor

- Performed metallurgical lab hardness testing (Vickers and brinell) and mechanical testing (tensile, compression and shear).
- Conducted chemistry analysis to monitor the element composition in the furnace for daily production using optical spectrometer.
- Authored and co-authored over 200+ technical reports on engine defect analysis.
- Initiated and managed a global project to compare and study the performance of the optical spectrometer on various Nemak plants.
- Performed testing to identify the root cause of the defects on various die-castings and sand-casting aluminum alloys.
- Investigated and analyzed warranty return engine blocks to expose the reason behind failures by performing microstructure study that includes studying the Secondary Dendrite Arm Spacing (SDAS), Porosity and grain boundary analysis on the defected area and compiling a detailed on report depicting all the findings of the examined process.
- Worked in PPAP inspection process that involves non-destructive testing and gauging.
- Worked on vertical band saw machine to prepare samples for mechanical testing and machine them using CNC Hardinge lathe.

Production & Warehouse Coordinator –Co-op Student (August 2015 - December 2015)
Highbury Canco Corporation (formerly Heinz), Leamington

- Monitored the Overall Equipment Effectiveness (OEE) and analysed the causes of downtime of various production lines.
- Implemented KAIZEN and lean principles to improve the efficiency of various manufacturing and co packing process.
- Monitored and updated Cycle count including performance and SAP adjustments
- Assisted the supervisors in the production floor in developing process documents and manufacturing procedures.
- Assisted the manager on the labor allotment for the production floor.
- Conducted training on health and safety measures to contractors based on OHSA and company policies.

Sales Engineer (August 2013 – May 2014)
AVK Valves India Private Limited, Malur, India

- Monitored improvement and conveyance of products - gate valves, air valves, butterfly valves, and non-return check valves.
- Identified current and future requirements of clients including technical specifications regarding the products supplied.
- Provided technical advice to clients on various features of products that benefit their business aspects.
- Liaised and collaborated between different departments internally to monitor the flow of the products manufacturing until the products gets supplied.
- Developed and established strong relationships with clients and enlisted the company on their vendor database.
- Assisted in preparation of project charters, timeline estimates, scope and control.
- Streamlined and standardized the procedures for project management - tracking, reporting and cost analysis
- Documented areas within engineering workflows to improve operational efficiency and performance.
- Assisted the managers in all project closures and cost control analysis.

NOTEWORTHY ACADEMIC PROJECTS

Thermal behavior and cooling approaches of a BLDC motor (May 2015 - August 2015)
The Project was to study and analyse the thermal behaviour of Brushless DC motor and what efficient coolant must be used to overcome this heat generation. Applied thermodynamics concepts and used Autodesk Inventor to design the Brushless DC motor and used ANSYS to determine the thermal effects on the motor under specified steady state and transient conditions.

CFD Analysis on aero square (January 2016 - April 2016)
The project idea was to study and analyze how Strouhal and Reynolds number affects the drag coefficient in bluff bodies. Applied strong fluid dynamics concepts and used STAR CCM+ to simulate computed data.

Design of a two stage spur gear speed reducer **(**January 2013 – May 2013)
The Project idea was to design and manufacture spur gears and control them by reducing the RPM at two stages using shafts. The specifications of gears were computed and then designed using PRO-E. The components were then machined at shop floor.