

## **Nileshkumar Gajanand Patel**

4 Pandeem Road, Rochedale South, Queensland 4123.

M: 0430 435 952, Email: n.patel@avyengineering.com.au

### **PROFILE**

Seeking a position in industry where my technical skills, creativity, and problem solving ability can be useful in enhancing the productivity.

- Developed communication skill.
- Quick learning.
- Effective problem solving and decision making skills.
- Can work well in a team and pressure situation.
- Good understanding of Australian Standards (AS4100, AS3990, AS3774, AS4991, AS1554, AS1657, AS1100 etc.).

### **QUALIFICATIONS**

- **Master in Advanced Manufacturing Technology with GPA of 5.62 / 7** from University of South Australia. (February 2007 – December 2008).
- **Bachelor in Mechanical Engineering with First Class** from Hemchandracharya North Gujarat University, Patan, Gujarat, India (August 2003- June 2006).
- **Diploma in Mechanical Engineering with Distinction** from Technical Education Board, Gandhinagar, Gujarat, India (December 2000- June 2003).

### **CAREER DEVELOPMENT**

- Member of Engineers Australia as a Professional Engineer.
- Working towards achieving Chartered Engineer/ RPEQ status.

### **TECHNICAL SUMMARY**

- Advance user of SolidWorks including Motion and Stress Analysis and knowledge of Visual Basic, C# Language and Visual Studio.
- Advanced user of Microsoft Office products.
- Ability to create SolidWorks Macros, Add-ins and Standalone application.
- Ability to create Microsoft product Macros, Add-ins and Standalone application.

### **CAREER SUMMARY**

#### **1. Mechanical Engineer/ Proprietor**

Avy Engineering & CAD Solutions, 4 Pandeem Road, Rochedale South, Queensland 4123.

**Duration:** March 2017 to Current.

#### **Services Offered:**

- Engineering design to fabrication drawings.
- 3D Modelling and drafting using SolidWorks.
- SolidWorks automation using Macro, Add-in or Stand-alone application.
- SolidWorks PDM Professional automation.
- SolidWorks and PDM integration with ERP/ MRP system.

#### **Projects:**

- Design and fabrication drawings of 5 Tier Grandstand.
- Design and fabrication drawings of Curved Roof Shelter.

- Design and fabrication drawings of Bus Shelter.
- Avy Engineering add-in:
  - 1. Adds the components (Assembly or Part) at any level in the active assembly based on Avy Engineering part numbering system.
  - 2. Updates active drawing's or multiple drawings' custom properties from an excel sheet for revision control.
  - 3. Saves active drawing or multiple drawings as PDF with revision number into a project folder. Moves old revision PDFs to folder called 'Superseded'.
- Client Add-in:
  - 1. Created an add-in to link quantity of the sheet metal parts to a drawing note created for flat pattern drawing view.
  - 2. Also added function to save drawings as PDFs with revision number into a project folder.
- Client Macro: Sets the bend radii of each bends based on the angle, material and thickness. Client has prepared an excel sheet for bend radii for each degree of bend based on material and thickness.

## **2. Mechanical Designer**

B & R Enclosures Pty Ltd, 51 Stradbroke Street, Heathwood, Queensland 4110.

**Duration:** 14th July 2014 to 28th June 2019.

### **Key Roles:**

- Starting from concept to modelling, drafting and preparation of production drawings using SolidWorks.
- Customising products to suit client requirements.
- Design of Jigs and Fixtures as per requirement.
- Engineering design of products and components.
- Testing of products and components.
- From prototype to development of standard products.
- Liaise with supply and manufacturing team.

### **Achievements:**

- Designed Media Enclosure for Val Morgan Outdoor (VMO) suitable to hold 55" Display Screen to be installed on patrol station across Australia.
- Designed Heavy Duty Enclosures (IP66 rated) up to 3.6 meter wide to be used in Middle East (On-shore & Off-shore).
- Designed Custom Signal Cabinets for Queensland Rails.
- Created SolidWorks Add-in to create flat patterns for each configuration in part document.
- Created SolidWorks Add-in to save DXFs of flat patterns into specific directory based on part document name.
- Created Excel Macro to create custom and configuration specific properties for parts and assembly documents in SolidWorks.

## **3. Design Engineer**

Flexco Tasman Warajay Pty Ltd, 49 Hanbury Street, Bundaberg North, Queensland 4670.

**Duration:** 4th June 2012 to 11th July 2014.

### **Key Roles:**

- Modelling, drafting and preparation of production drawings using Solidworks.

- Design of Transfer Chute Components, Lifting equipment, Platforms and structure, Load calculations & stress analysis of parts and assemblies.
- Preparation of design calculation reports for certification & operations and installation manual for products.
- Liaise with manufacturing team to sort out issues raised during fabrication.
- Designed process layout of the manufacturing plant and working with manufacturing team to set up the facility.
- Worked with management team preparing the budget.

**Achievements:**

- Designed new process layout for the manufacturing facility.
- Solved the issue of splines created during conversion from Solidworks drawing files to DXF files which made the nesting process unable.
- Introduced new automated notation in profile drawings which can be used during nesting process and saved lot of time for manual typing and potential human error by nesting officer.

**4. Production / Design Engineer**

Ozone Manufacturing Pty Ltd, Woodville North, South Australia 5012.

**Duration:** 2nd March 2009 to 18th May 2012.

**Key Roles:**

- From conceptual design to final production drawing using AutoCAD & Solidworks.
- Design of new custom product components.
- Consultation between senior management and production team.
- Testings, improvements and documentation.
- Preparation of production schedule and stock management.

**Achievements:**

- Reduced production cost of many products by redesigning different parts and eliminating some redundant parts.
- Increased productivity by some simple and effective design and also minimised few parts to be sent out for folding.
- Significantly improved production schedule and efficiency of the plant.
- Maintained deadlines by proper planning.
- Introduced new Excel programming for automatic stock management.

**5. Project Administration Assistant**

Institute for Sustainable Systems and Technology, University of South Australia, Adelaide.

**Duration:** October 2008 to December 2008 (Contract Work)

**Key Roles:**

- Survey of lights and occupancy.
- Calculations of lights per square metre.
- Lights used and wasted.
- Solutions of how to reduce light usage and other alternative.
- Computer pool survey.

**REFERENCES**

Available upon request.