

# Dhruvil B Patel

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## EDUCATION

**Ahmedabad University**  
*Bachelor of Technology, Mechanical Engineering*

**Gujarat, IN**  
August 2017 - May 2021

## PROFESSIONAL EXPERIENCE

**Caterpillar Signs Pvt Ltd**

*SolidWorks Executive*

**Ahmedabad, IN**  
October 2021 – August 2022

- Creating and rendering product designs from the blueprints and customer's suggestions.
- Maintaining the entire operation's workflow and did necessary changes for more efficiency.
- Coached and trained 4 new hires during their on-boarding process and assisted with the initial project challenges.

**Surya Industries**

*Manufacturing Intern*

**Ahmedabad, IN**  
November 2019 – February 2020

- Analysis of the whole manufacturing process and learn about production system very closely.
- Analyzed 3 years of Inventory data using advanced excel features like VLOOKUPS, Macros and Pivot Tables to forecast new Reorder level and EOQ in a group.

**Jyoti CNC Automation Ltd**

*Industrial Intern*

**Rajkot, IN**  
May 2019 – August 2019

- Observed manufacturing processes from casting to painting to packing of CNC machines parts and other parts.
- Implemented random sampling method to evaluate final product quality to ensure high quality standards were met, as well as created and maintained SPC Quality charts.

## SKILLS

- **Programming Languages:** C/C++, CSS, HTML, MATLAB, Python, Scilab
- **Software Tools:** Advance Excel, Arduino, AutoCAD, SolidWorks, Tableau
- **Core Competencies:** Continuous Process Improvement, Quality Management, Production and Operations Management, Design Development, Design Engineering, Manufacturing processes, Advance Excel.

## PROJECTS

**Feasibility Analysis of Bi-facial PV Module (Undergraduate Research Project, Manuscript no. ERX-102032.R1)**

- Procured and analyzed meteorological and GHI data for the year 2020, and developed theoretical models to calculate bi-facial gain, power, and efficiency.
- Performed cost reduction analysis and calculated the lifetime CO2 savings by implementing bi-facial PV module for a particular site.

**Centrifugal Pump Characteristics Experimental Setup**

- Designed and developed a setup to find out the centrifugal pump characteristics by measuring pressure difference across the pipe joints and by varying water flow rate.

**Financial Analysis of Two Automotive Manufacturing Companies (Case Study)**

- Gathered latest 15 years data and did data cleaning. Performed hypothetical testing analysis with the help of t-tests and f-tests on different parameters like gross profit, net income, and total selling.

**Fabric Drying Experimental Setup**

- Designed and developed a setup such that different fabric samples can be analyzed by varying parameters like pressure difference, DBT, WBT, Air flow rate to find an empirical relation for drying period.

## EXTRA CURRICULAR ACTIVITIES

- **Co-founder, American Society of Mechanical Engineer (ASME)** student chapter at Ahmedabad University; gathered memberships of 80+ students; collaborated with 3 schools; organized, anchored 14 events, and mentored Social Media outreach and Newsletter teams
- **Winner**, Website Making Challenge 2021 by programming club at Ahmedabad University
- **Winner**, Mechathon 2020 by Ingenium technical fest at Ahmedabad University
- **Certificate** in Mechanical Design at associate level from **Dassault Systems**
- **Industrial visits** at **Arvind mills** and **RBD Engineers** to understand manufacturing system