

# PIYUSH MALVIYA

## Static Equipment Design Engineer

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Pune, Maharashtra

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## WORK EXPERIENCE

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### Pharmadule Engineering India Pvt Ltd

Jun 2023 – Present

Mumbai

#### Roles and Responsibilities:

- Preparation of Design Report of Equipment's like Pressure Vessels, Reactors and Columns per ASME Section VIII Division I Design Code in PV Elite Software.
- Checking of General Arrangement Drawings and Fabrication Drawings of Pressure Vessels, Reactors and Columns.
- Perform Analysis of Nozzles in NozzlePro Software.

Project: Flue Gas Desulfurization (FGD)

Customer: NTPC, DVC, MPL and PPGCL

### Thermax Limited

Jul 2019 – Jun 2023

Pune

#### Roles and Responsibilities:

- Design of Vertical Storage Tanks per IS 803 and API 650 Design Codes through self-developed excel spreadsheet.
- Checking of General Arrangement and Fabrication Drawings of Vertical Storage Tanks.
- Design of Silos per IS 9178 Design Code through self-developed excel spreadsheet and STAAD.Pro Software
- Checking of General Arrangement and Fabrication Drawings of Silos.
- Offer Support to Proposal Team by Estimating Tanks and Silos Material Weight during Pre-Bid Stage.
- Mechanical Sizing of Equipment's like Tanks, Silos, Ducts, Chimneys, Storage Sheds, etc.
- Preparation of Technical Procurement Specifications, Technical Delivery Conditions for Exotic Materials (like C-276 and Titanium) and Evaluation of Technical Offers of Various Packages like FRP Spray Header Pipes, Borosilicate Lining, Glass Flake Lining, Rubber Lining, etc.

### M.tech Project Trainee

#### John Deere

In Aug 2018 – Feb 2019

Pune

- Developed a simulation model for computing stable configurations for off- road vehicle. Dynamic mathematical model is developed using Newton-Euler approach which yields a system of non-linear equations which are solved iteratively using MATLAB software to predict stability for varying

terrains and dynamic loads. Given a vehicle geometry and terrain conditions, this methodology allows the simulation and prediction of various longitudinal overturning situations under dynamic loading.

## EDUCATION

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M.tech in Mechanical Engineering (Machine Design)

**Veermata Jijabai Technological Institute (VJTI)**

**Score: 8.35/10**

Jul 2017 – Jul 2019

Mumbai

B.E in Mechanical Engineering

**Vishwakarma Institute of Information Technology**

**Score: 61.24/100**

Jul 2012 – Jul 2016

Pune

XII

**Maharashtra State Board**

**Score: 70/100**

Jul 2011 – Jul 2012

Amravati

X

**CBSE**

**Score: 8.6/10**

Jul 2010 – Jul 2011

Amravati

## PUBLICATIONS

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“Development of a Simulation Model for Computing Stable Configurations for Off-Road Vehicle,” SAE Technical Paper 2019-28-0126, 2019, doi:10.4271/2019-28-0126.

## ACHIEVEMENTS

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- Awarded for developing design programs for vertical storage tanks and silos by Thermax Limited.
- Awarded for optimizing hastelloy (C-276) plate cutting layout required for Absorber manufacturing by Thermax Limited.
- Ranked within 5 Percentage in GATE'17 Examination.
- Ranked Third in District in X Standard.
- Won District Championship in Basketball.

## ACADEMIC PROJECTS

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M.tech Project

- Development of a Simulation Model for Computing Stable Configurations for Off-Road Vehicle.

Eaton Fluid Power Limited, Pune

- Hydraulic Simulation of Hitch-Valve. Performed analysis in automation studio software for hydraulic circuit of hitch valve.

B.E. Project

- Development of a Parametric Model of an Automotive Damper (4th year, team of four). We created a MATLAB program to predict the damping forces which was theoretically validated.

## **SOFTWARES**

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PV Elite and NozzlePro

CATIA, CREO and SOLIDWORKS

STAAD.Pro, ANSYS and Automation Studio

MATLAB/Simulink/Simscape/Simmechanics

## **LANGUAGES**

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English, Hindi and Marathi.