# MEBIN P BENNY

# MECHANICAL DESIGN ENGINEER

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### **PROFILE**

Dynamic Product Design Engineer with a Master's degree in Mechanical Design and over 2.5 years of experience in New Product Development and Design. Adept at delivering innovative solutions and collaborating with cross-functional teams to transform ideas into production-ready products. Recognized for strong technical expertise, leadership skills, and a proven ability to meet customer needs.

## TECHNICAL EXPERTISE

CAD & CAM: PTC Creo, SolidWorks, CATIA V5, Siemens NX

**FEA**: Ansys, Creo Simulate **CFD**: openFOAM, Flow-3D

OTHERS: Granta, Windchill, Teamcenter, MS Office, SAP ERP, MS Project

### **EDUCATION HISTORY**

MSc. Mechanical Design Engineering with Management | University of Liverpool | Sep 2022 – Sep 2023

• Graduated with Merit 2:1; awarded Top Project Award 2022-2023.

Bachelor of Technology (Mechanical Engineering) | Lovely Professional University | Aug 2014 – Jun 2018

• Graduated with First Division (CGPA: 8.03 / 72.27%).

#### WORK EXPERIENCE

Mechanical Design & Development Engineer | Rockman Industries Ltd., India | Jul 2018 – Jan 2021

- Designed and developed new products from conception to production.
- Utilised Stress, Thermal and Flow Analysis to reduce defects and improve quality of component.
- Implemented prototyping through 3D Printing, Machining, Rapid Tooling to test and validate fits and tolerances of the components.
- Conducted Feasibility study, Proof of Concepts and GD&T for new products to meet customer requirements.
- Prepared, reviewed and maintained technical documentations like PDS Technical Drawings, BOM, DFMEA, DFM, and DFA.

#### **INTERNSHIP**

Engineering Intern | RSWM Pvt Ltd., India | Jun 2017 – Jul 2017

- Experienced with Manufacturing techniques like CNC machining, milling, turning, lathe machining etc.
- Designed Jigs and Fixtures for various machine operations.
- Conducted quality improvement initiatives through Kaizens, Six-Sigma and Lean Manufacturing.

### **KEY PROJECTS**

**3D-Printed Assistive Device for Essential Tremors (ET)** | University of Liverpool | 2023

• Prototyped a assistive device, potentially aiding 18.6% of UK individuals with ET; awarded Top Project.

Reverse-Engineered Gamepad | University of Liverpool | 2022

• Designed a precise CAD model, leveraging advanced features like Assembly Modelling & Surface Modelling.

**Bugzi Mobility Wheelchair Add-on** | University of Liverpool | 2022-2023

• Designed a modular device aiming to help 58,000 disabled children in the UK to develop motor skills.

Automated Flow Controller for Heat Exchanger | Rockman Industries Ltd. | 2019

• Built a system reducing energy consumption by 3% and water flow through heat exchanger by 10%.

Leakage defect in Die-Casted Viscous Clutch | Rockman Industries Ltd. | 2018

• Reduction of leakage defect in a New product from 30% to 12%, implementing various analysis tools.