# Devesh Pramod Pawar
# Indian Institute of Technology Madras

+91-7020479047 | Email | LinkedIn | Github


## Education

| Program | Institution | %/CGPA | Year of Completion |
|---|---|---|---|
| B.Tech in Mechanical Engineering & Interdisciplinary M.Tech in Data Science | Indian Institute of Technology Madras, Chennai | 9.15/10 | 2027* |
| Class XII (Maharashtra State Board) | R.C. Patel Art, Commerce & Science College, Shirpur | 98.17% | 2021 |
| Class X (Maharashtra State Board) | Janata High School, Sindkheda, Maharashtra | 96.80% | 2019 |

## Scholastic Achievements

- Secured **Silver Medal** at Inter-IIT Tech Meet'23 in the Albatross Energetics problem statement, competing among top IIT teams.
- Achieved **AIR 4403** (Top 3%) in JEE Advanced 2022 and **AIR 5154** (Top 0.5%) in JEE Mains 2022, among 1M+ test-takers nationwide.
- **Ranked 168** in MHT-CET 2022 out of 2.5 lakh+ candidates, placing in the top percentile among engineering aspirants across Maharashtra.
- Secured **District Rank 1** in Class X Board Examinations, achieving distinction as the highest performer in the entire district.

## Professional Experience

1. **Wipro Infrastructure Engineering** (Project: Packaging Cost Optimization for Spares.) (Proof) **(May'25-July'25)**
   - Identified cost optimization opportunities and applied **5+ unsupervised learning algorithms**, resulting in **20%+ cost savings**.
   - Built and deployed a packaging cost calculator for RFQ[1] processes, **reducing quotation lead time by nearly 50%** across plants.
   - Designed and implemented a Python–Flask web application to scale the packaging optimization solution across multiple customers.
2. **FedEx-IITM Centre** (AI-based driver monitoring - Data Acquisition & Performance Studies.) (Proof) **(May'24-July'24)**
   - Assessed **10+ haptic devices & sensors**, built the pipeline for seamless data collection, integration, and real-time processing.
   - Implemented advanced classification algorithms for anomaly detection, significantly enhancing training reliability and effectiveness.

## Projects

1. **Market Volatility Prediction using LSTM and TCN** (link) **(Personal Project)**
   - Developed quantitative forecasting models (GARCH, LSTM, Transformer) to predict **financial time-series volatility** in IT sector data, achieving strong performance with **MAE of 0.42** and **MSE of 0.27** on validation datasets**.**
   - Built a novel **VMD[2]-LSTMA-TCNA** hybrid deep learning model entirely from scratch, integrating temporal and frequency features.
   - Enhanced prediction accuracy with the hybrid model, achieving state-of-the-art validation scores of **MAE 0.25** and **MSE 0.12.**
2. **Custom Large Language Model** (link) **(Personal Project)**
   - Designed and trained a **Bigram Language Model** on a limited corpus, implementing foundational NLP techniques with a **loss 3.24**.
   - Built and evaluated a **GPT-based Language Model** from scratch, gaining hands-on experience in transformers with a **loss 5.21.**
3. **Reinforcement Learning Based Snake Game Playing Model** (link) **(Personal Project)**
   - Built a Reinforcement Learning Snake Game AI in a custom Pygame environment, implementing training and evaluation.
   - Implemented Q-Learning algorithm, emphasizing work on designing, optimizing & evaluating **stochastic decision-making models**.

## Positions of Responsibility

1. **Head & Project Member (iBot[3] Club, Center for Innovation, IIT Madras)** **(May'23-May'25)**
   - Led a **60+ member** robotics club, managing 5 projects and a competition team while mentoring students in robotics & AI.
   - Organized the "**AI-Robothon**" hackathon in collaboration with **Orangewood Labs**, attracting **10+ IITM teams**, & collaborated with O.P. Jindal Global University to develop a **GPT-powered semi-humanoid museum guide robot**.
   - Initiated filing of **2 Intellectual Property** applications from club projects, driving innovation & research impact.
   - Led navigation module in Project **CoBALT[4]**, building Gazebo simulations with kinematic modeling and ROS integration.
   - Implemented A* and MPC algorithms for autonomous navigation and developed methods to streamline warehouse logistics efficiently
2. **Manager (Sponsorship & Industrial Relations, Center for Innovation, IIT Madras)** **(Oct'23-May'24)**
   - Secured and managed sponsorships for CFI[5] Research Conclave'23 (**1k+ footfall**) and Open House'23 (**5k+ footfall**).
   - Built a sponsor database, reached out to 15+ organizations, and negotiated in-kind deals to support CFI[5] projects.

## Relevant Course Work

- Principles of Economics
- Deep Learning
- Data Structures and Algorithms (C++ & Python)
- Foundations of Machine Learning*
- Mathematical Foundations for Data Science*
- Introduction to Scientific Computing

## Skills

- Linux, Python, C++, Pandas, Numpy, PyTorch, TensorFlow, Git, SQL, MATLAB.
- MS Excel, MS PowerPoint, MS Word, Latex.

Abbreviations: ***ongoing** | **RFQ[1]**: Request for Quote | **VMD[2]**: Variational Mode Decomposition | **iBot[3]**: Robotics Club at IIT Madras | **CoBALT[4]**: Collaborative Bots for Automated Logistics & Transport | **CFI[5]**: Center for Innovation IIT Madras