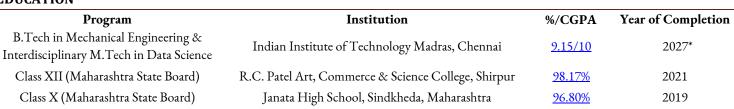
Devesh Pramod Pawar Indian Institute of Technology Madras

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EDUCATION



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 RFQ¹ 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 VMD²-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 (<u>link</u>)

(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 (<u>link</u>)

(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 (iBot³ 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 CoBALT⁴, 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 CFI⁵ 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 CFI⁵ 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 | RFQ¹: Request for Quote | VMD²: Variational Mode Decomposition | iBot³: Robotics Club at IIT Madras | CoBALT⁴: Collaborative Bots for Automated Logistics & Transport | CFI⁵: Center for Innovation IIT Madras

