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's.
- Achieved AIR 4403 (Top 3%) in JEE Advanced 2022 and AIR 5154 (Top 0.5%) in JEE Mains 2022, among 1M+ candidates.
- Ranked 168 in MHT-CET 2022 out of 2.5 lakh+ candidates.
- 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 (Proof)

(Project: Packaging Cost Optimization for Spares.

(May'25-July'25)

- Applied clustering & unsupervised learning to identify optimization opportunities, reducing packaging costs by 20%+.
- Built & deployed a **Python-Flask web app** with full ML-Pipeline & cost calculator, cutting **RFQ**¹ lead time by ~50%.
- Delivered a scalable solution adopted for multiple customer plants, improving decision-making efficiency.

2. FedEx-IITM Centre (Proof)

(**Project**: AI-based driver monitoring - Data Acquisition & Performance Studies.)

(May'24-July'24)

- Designed pipeline for **real-time sensor data collection & integration** using 10+ haptic devices.
- Applied ML classification models for anomaly detection, improving training reliability & worker safety monitoring.

PROJECTS

1. Market Volatility Prediction using LSTM and TCN (link)

(Personal Project)

- Developed forecasting models (GARCH, LSTM, Transformer) for financial time-series, achieving validation MAE 0.42.
- Engineered features using VMD² and built a hybrid VMD-LSTM-TCN model, reducing MAE to 0.25 (40% improvement).
- Visualized model outputs to support risk management & trading decision-making.

2. Custom Large Language Model (link)

(Personal Project)

- Built and evaluated bigram and GPT-based model, demonstrating **deep learning architecture implementation**.
- Built & evaluated a GPT-style model from scratch on a custom corpus, gaining hands-on experience in transformers & NLP pipelines, achieving loss 5.21.

3. Reinforcement Learning Based Snake Game Playing Model (link)

(Personal Project)

- Built a reinforcement learning agent with **Q-learning**, achieving adaptive gameplay in a custom Pygame environment.
- Focused on designing, training, and optimizing **stochastic decision-making models** with dynamic state transitions.

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 & initiated filing of **2 Intellectual Property** applications while mentoring students in robotics & AI.
- Organized the "AI-Robothon" hackathon in collaboration with Orangewood Labs, & collaborated with O.P. Jindal Global University to develop a GPT-powered semi-humanoid guide robot.
- Directed navigation module in Project **CoBALT**⁴, implementing A* & MPC algorithm and building ROS/Gazebo simulations to optimize warehouse logistics.

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

- Foundations of Machine Learning*
- Introduction to Scientific Computing
- Principles of Economics

- Mathematical Foundations for Data Science*
- Data Structures and Algorithms (C++ & Python)
- Deep Learning



SKILLS

- Linux (Bash), Python, C++, Pandas, Numpy, PyTorch, TensorFlow, Git, SQL, MATLAB.
- MS Excel, MS PowerPoint, MS Word, Latex.
- Leadership, Team Work, Problem-Solving, Critical Thinking.

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