

Mayuri Thorat

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EDUCATION

The University of Manchester

MSc in Advanced Computer Science (Artificial Intelligence): 2:1 Honours

Manchester, UK

Sept 2024 - Sept 2025

Pune University

B.Tech in Artificial Intelligence and Machine Learning: 9.7/10 CGPA

Pune, India

Jan 2021 - Apr 2024

SKILLS

AI & Machine Learning: Supervised & unsupervised learning, deep learning, CNNs, feature engineering, model evaluation, experimentation

ML Engineering & Data: Python, SQL, ETL/ELT pipelines, Apache Spark, batch & streaming processing

Cloud & MLOps: AWS (S3, EC2), GCP (BigQuery), Docker, Airflow, MLflow, CI/CD

Analytics & Tools: Power BI, Tableau, Advanced Excel (DAX), Git, Agile/Scrum

WORK EXPERIENCE

AI/ML Specialist

Wingy

Remote, Global

Jan 2023 - Dec 2023

- Built and maintained Python & SQL-based ETL pipelines for analytics and reporting
- Improved data accessibility through Jupyter-based analysis and dashboards
- Introduced Git workflows, improving collaboration and code quality across teams

AI/ML Researcher and Project Lead Intern

Drio

Chennai, India

Feb 2023 - Apr 2023

- Developed real-time data pipelines combining telemetry and imaging data
- Improved data accuracy by 15% via structured preprocessing pipelines
- Optimised processing performance by 35% for real-time ML systems

Web Development Intern

X-Gen Fuels

Pune, India

Jul 2023 - Aug 2023

- Developed REST APIs, reducing response latency by 40%
- Implemented secure data handling for sensitive systems
- Collaborated with UI/UX teams to integrate backend services
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AI Research Project (MSc Dissertation)

The University of Manchester

Manchester, UK

Sept 2024 - Sept 2025

- Designed a lightweight spiking neural network (SNN) for mental state detection using micro-expressions
- Built the full research pipeline: preprocessing, training, evaluation, and analysis
- Conducted experimental validation as part of MSc dissertation research

LEADERSHIP EXPERIENCE

Secretary & Publicity Lead

IEEE (Institute of Electrical and Electronics Engineers), Pune Section

Pune, India

Jul 2021 - Jan 2024

- Increased club membership by 25% by launching targeted outreach campaigns
- Organised and led a small team to manage workshops and events, promoting engagement in tech and data programs and handling content creation and event logistics

PROJECT EXPERIENCE (Selected projects - full portfolio on [GitHub](#))

Generative AI Chatbot with Retrieval-Augmented Generation (RAG): *Developed a domain-specific chatbot using LangChain, vector databases, and OpenAI APIs, delivering context-aware responses with 90%+ relevance accuracy in testing*

ReflexOps - Real-Time Business Reflex AI: *Developed ReflexOps, a real-time AI automation layer that acts instantly on business events, enabling companies to react with zero lag and self-heal operational issues*

Mental State Detection using Computer Vision and Micro-expressions: *Designed and built a lightweight SNN-based model for early emotion analysis*

ETL Pipeline with Cloud Storage: *Built automated pipelines using AWS S3 + PySpark for data ingestion and transformation*

CERTIFICATIONS AND AWARDS

- Outstanding Project in Data and ML - University of Pune, 2024
- Goldman Sachs - Software Engineering Job Simulation
- Deloitte Australia - Technology Job Simulation
- Oracle 12 Cloud - Advanced SQL/PLSQ
- AWS Cloud Practitioner - Amazon Web Services

PUBLICATIONS (Selected publications - full list on [LinkedIn](#))

- Transforming Healthcare: A Paradigm Shift through AI-Smart Diagnosis, IJARESM (ISSN NO: 2455-6211)
- Deep Convolutional Neural Networks for Medical Image Classification: A Comprehensive Review on Brain Tumor MRI Images using ResNet50V2, VGG19, and VGG16 Architectures, IJARESM (ISSN NO: 2455-6211)
- Real-Time Multi-Camera Vehicle Tracking and Travel-Time Estimation Based on Machine Learning Techniques, IJCRT, 2023
- Review on Selection of Optimum Features for Neural Network Using Genetic Algorithm in Classification of Brain Computer Interface Data, IJCRT (ISSN NO: 2320-2882)
- Customer Behaviour Analysis: Tools Overview, IEEE (ISSN NO: 2473-2001)