

MEGAVARSHAN A

Chennai, IN | megavarshan1616@gmail.com | +91 73058 70441 | [LinkedIn](#) | [GitHub](#) | [LeetCode](#)

EXECUTIVE SUMMARY

AI undergraduate with experience in machine learning, deep learning, generative AI, and scalable data-driven systems across healthcare, geospatial intelligence, and intelligent transportation domains. Skilled in Python, SQL, TensorFlow, PyTorch, Apache Spark, and cloud-native AI development, with hands-on experience building end-to-end ML pipelines, LLM-powered applications, and AI-driven decision support systems. Proficient in model development, fine-tuning, deployment, and data processing, with a strong focus on developing reliable, scalable, and production-oriented AI solutions.

EDUCATION

Bachelor of Technology in Artificial Intelligence

2023 – 2027

SRM Institute of Science and Technology, Chennai

SKILLS

Programming & Scripting: Python, C++, Java, SQL, Linux

Data Engineering & Analytics: ETL Pipelines, Data Transformation, SQL Querying, Data Cleaning, Schema Design, Data Preprocessing, Feature Engineering, Exploratory Data Analysis (EDA), NumPy, Pandas, PostgreSQL, Apache Spark, PySpark, Hadoop, Hive, Data Warehousing, Data Modeling, MongoDB, Power BI, Data Visualization

Machine Learning & AI: Supervised & Unsupervised Learning, Deep Learning, Neural Networks, Transformers, Generative Adversarial Networks (GANs), Image Processing, Computer Vision, Natural Language Processing, PyTorch, TensorFlow, Scikit-learn, Model Training, Model Evaluation, Feature Selection, Model Explainability, Large Language Models (LLMs)

LLM & Generative AI: Prompt Engineering, LLM Fine-Tuning, Retrieval-Augmented Generation (RAG), LangChain, AI Agents, Agentic Workflows, Multi-Agent Systems, Vector Databases (FAISS, ChromaDB), LLM Evaluation

Software Engineering & Tools: Data Structures & Algorithms (DSA), Git/GitHub, Software Development Life Cycle (SDLC), FastAPI, Docker, Model Deployment, API Integration, Debugging

Cloud & Platforms: AWS (EC2, Lambda, Bedrock, SageMaker), Azure Fundamentals, Firebase, BigQuery Sandbox, Google Cloud Platform Fundamentals

EXPERIENCE

AI Research Intern

Jun 2025 – Dec 2025

National Institute of Technology (NIT), Trichy

- Designed and implemented a deep learning pipeline integrating ConvNeXt and multi-scale feature fusion models for dermoscopic image classification using structured patient metadata.
- Developed and debugged scalable preprocessing and inference pipelines, improving system reliability and reducing errors in real-time predictions, optimizing latency and threshold calibration to improve prediction reliability and reduce false positives, achieving 91% accuracy.

Computer Vision AI Developer Intern

Dec 2025 – Jan 2026

InfiniTraq AI (By Griffin AI)

- Engineered multi-stage real-time video analytics pipelines integrating intelligent frame sampling, optimized deep learning inference, multi-object tracking, and event abstraction for scalable deployment.
- Improved inference robustness and latency through computational optimization, benchmarking, and threshold calibration under real-world noise and region-specific constraints.

ATRIBS Software Systems (SHIELD International Group)

- Engineered AI-driven automation workflows for business optimization, contributing to scalable data processing pipelines and analytical system enhancements.
- Gained hands-on exposure to real-time enterprise environments, application development, client servicing, and business-oriented technology practices through industry-aligned training and workflows.

PROJECTS

AI-Based Spatial Information System for Disaster Management (ARIES & DRDO)

- Developed a multimodal data pipeline using Python, Pandas, GeoPandas, and GIS datasets, integrating satellite imagery, rainfall measurements, geospatial layers, and textual reports for risk assessment
- Processed and analyzed large-scale spatial-temporal datasets through feature engineering, uncertainty estimation, and cross-modal validation to improve data quality and reliability across heterogeneous data.
- Built a decision-support framework leveraging anomaly detection, confidence calibration, and geospatial analytics to support disaster alert generation and operational response planning.

Reducing Road Congestion in Greater Mumbai – IIT Guwahati

- Developed predictive analytics models using Python, Pandas, NumPy, Scikit-learn, and Intelligent Transportation System (ITS) datasets containing vehicular flow, traffic density, speed, and route information.
- Designed data processing pipelines for traffic hotspot detection, bottleneck identification, mobility pattern analysis, and large-scale transportation data analytics.
- Implemented traffic forecasting and signal optimization models, achieving up to 70 percent improvement in simulated traffic flow efficiency under high-density congestion scenarios.

Multilingual NLP Analysis [\[GitHub\]](#)

- Evaluated Transformer-based sentiment and toxicity classification models across 13 Indian languages using PyTorch, Hugging Face Transformers, and multilingual benchmark datasets.
- Developed an evaluation dataset containing code-mixed text, sarcasm, idiomatic expressions, and regional linguistic variations, performing fine-tuning and error analysis to assess model robustness across languages.

GLOBAL CERTIFICATIONS & ACHIEVEMENTS

Certifications:

- [AWS Certified Cloud Practitioner](#)
- [Oracle Cloud Infrastructure 2025 Certified Generative AI Professional](#)
- [Oracle AI Vector Search Certified](#)
- [Oracle Cloud Infrastructure 2025 Certified Developer](#)
- [SAP Certified - Data Analyst - SAP Analytics Cloud](#)
- Salesforce Certified AgentForce Specialist (Credential ID: 7282784)

Competitive Programming Problem Solving:

- LeetCode: 822+ Problems Solved | Contest Rating: 1553 | Top 31.5
- Strong foundation in Data Structures, Algorithms, Dynamic Programming, Graph Algorithms, Greedy Methods, and Competitive Programming techniques.

Achievements:

- ★ Winner - Silver Medal (University Level) at SRM Research Day 2026
- ★ Top 10 Finalist, Infosys Techzooka – PALS IITM Hackathon 2025, Infosys Mahendra City Campus, Chennai