

VARSHITH JULAKANTI

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Summary

Computer Science student and aspiring **AI/ML/Generative Engineer**, specializing in Artificial Intelligence and Machine Learning, with strong experience in building and deploying intelligent systems. Skilled in developing end-to-end AI solutions using Python, deep learning frameworks, and data-driven architectures, with a growing focus on scalable ML pipelines, cloud-native deployment, model optimization, and responsible AI practices.

Education

Vellore Institute Of Technology-AP

BTech in Computer Science — CGPA: 7.43

September 2023 – Expected May 2027

Amaravati, Andhra Pradesh

Experience

AI Engineer | *Eco-Focused LLM & GenAI Systems*

2024 – Present

- Designed and deployed **Large Language Model (LLM)** applications optimized for reduced computational cost and energy efficiency
- Developed intelligent GenAI workflows using **LangChain** for document understanding, conversational agents, and task automation
- Built multi-agent reasoning pipelines with **LangGraph** to manage complex decision flows with minimal inference redundancy
- Implemented prompt optimization, response caching, and workflow pruning to lower token usage and reduce carbon footprint
- Integrated open-source LLMs to minimize reliance on high-energy proprietary models
- Applied **retrieval-augmented generation (RAG)** for efficient knowledge access without repeated model retraining
- Collaborated with cross-functional teams to align AI solutions with **green computing** and sustainability goals
- Monitored model performance and resource utilization to ensure responsible, scalable, and eco-friendly AI deployment

TATA Group | *GenAI-Powered Data Analytics*

January 2026

- Performed exploratory data analysis and risk profiling to identify high-risk customer segments
- Designed AI-assisted collection strategies leveraging GenAI concepts
- Built analytical workflows supporting business intelligence and predictive modeling
- Applied ethical AI principles with focus on explainability

JPMorgan Chase & Co. | *Software Engineering*

January 2025

- Developed backend logic and RESTful APIs for financial data processing
- Implemented Kafka-based event streaming for real-time data integration
- Applied enterprise-grade software engineering best practices

Technical Skills

Programming & Scripting: Python, SQL, Java (working knowledge), C/C++

AI / Machine Learning: Machine Learning, Deep Learning, Computer Vision, Transfer Learning, Model Evaluation

Generative AI: Large Language Models (LLMs), Prompt Engineering, Transformer-based Models, RAG (Retrieval-Augmented Generation), Hugging Face, OpenAI APIs

Frameworks & Libraries: TensorFlow, Keras, PyTorch, Scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, Seaborn

MLOps & Deployment: Flask, FastAPI, Streamlit, Docker, CI/CD Pipelines, Model Deployment

Cloud & Platforms: AWS, Google Cloud Platform (GCP), Google Colab, Jupyter Notebook

Databases & Data Handling: MySQL, PostgreSQL, MongoDB

Development & Workflow Tools: Git, GitHub, Linux/Unix (CLI), VS Code, Agile/Scrum

Projects

Personal Portfolio Website | [Live Demo](#)

2025

- Designed and developed a modern, responsive personal portfolio to showcase projects, skills, and technical journey.
- Built using **React, TypeScript, Vite, and Tailwind CSS** with smooth animations and interactive UI components.
- Implemented structured project sections, storytelling-based navigation, and live demo links for improved user engagement.
- Deployed on **Vercel** with optimized production builds and CI-ready configuration.

AI-Powered Drug Discovery Platform (DTI Prediction) | [Live Demo](#)

2025

- Developed an end-to-end **Drug-Target Interaction (DTI)** prediction platform to identify potential drug candidates from protein sequence data.
- Implemented a **CNN-based deep learning model** to learn interaction patterns between drugs and target proteins.

- Designed a **React + TypeScript + Tailwind CSS** frontend to display prediction scores, confidence metrics, and comparative analysis.
- Added visualization components for model architecture and prediction interpretation to improve explainability.

StockAI – AI-Powered Stock Price Prediction | [Live Demo](#)

2024

- Built an AI-powered stock price prediction web application using historical market data.
- Implemented a machine learning pipeline with **Linear Regression** for short-term time-series forecasting.
- Designed interactive dashboards to visualize actual vs predicted prices, trends, and forecast windows.
- Structured the project to support future enhancements such as LSTM, ARIMA, and sentiment analysis.

AI-Based Skin Disease Detection System | [Live Demo](#)

2025

- Developed an AI-powered dermatology assistant that analyzes skin images and predicts possible skin conditions.
- Trained and integrated a **TensorFlow-based deep learning model** for image-based disease classification.
- Built an interactive frontend using **HTML, CSS, and JavaScript**, connected to a **Flask-based ML backend**.
- Implemented end-to-end prediction workflows including image upload, inference, and result visualization.

Certifications

AWS Academy Graduate – Cloud Architecting | Amazon Web Services [Certificate](#)

AWS Academy Graduate – Cloud Foundations | Amazon Web Services [Certificate](#)

Oracle Cloud Infrastructure 2025 Certified Generative AI Professional | Oracle [Certificate](#)

Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate | Oracle [Certificate](#)

Software Engineering Job Simulation | JPMorgan Chase & Co. [Certificate](#)

GenAI-Powered Data Analytics Job Simulation | Tata Consultancy Services [Certificate](#)

Soft Skills

- | | | |
|------------------------------|---------------------|---------------------------|
| • Problem-Solving | • Adaptability | • Leadership |
| • Collaboration and Teamwork | • Time Management | • Technical Documentation |
| • Communication | • Logical Reasoning | • Project Management |