

# VIKAS PASPULA

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|📍 Hyderabad, Telangana

## PROFESSIONAL SUMMARY

AI Engineer and Full-Stack Trainer specializing in designing, training, and deploying advanced machine learning and deep learning systems. Experienced in building AI models for code analysis, authorship detection, NLP-based resume screening, and RAG-driven conversational systems using Transformers, BERT, LangChain, and vector databases like FAISS and ChromaDB. Skilled in developing scalable ML pipelines involving data extraction, feature engineering, AutoML, and performance evaluation using metrics such as accuracy, PSNR, and SSIM. Adept at integrating AI models into production-grade full-stack applications built with React, Django, and Spring Boot, and deploying them using Docker, CI/CD, Render, and Vercel. Strong expertise in Python, PyTorch, TensorFlow, NLP, GANs, and Computer Vision, with a track record of building intelligent, secure, and user-centric AI solutions across multiple domains.

## EDUCATION

<b>Mahindra University</b> <i>Master of Engineering in Artificial Intelligence and Data Science</i> Aug 2019 – Jun 2021	Hyderabad , Telangana CGPA: 7.60%
<b>Sreenidhi Institute of Science and Technology</b> <i>Bachelor of Engineering in Computer and Electronics Engineering;</i> Jun 2015 – Jun 2019	Hyderabad,Telangana CGPA: 7.24%
<b>Narayana Junior College</b> <i>July 2013 – May 2015</i>	Senior Secondary (XII); CGPA: 8.63%

## EXPERIENCE

<b>Gen AI Developer</b> <i>Chandigarh</i>	Cipher Schools Jun 2023 – Present
<ul style="list-style-type: none"><li>Leverage fine-tuned LLMs (e.g., Code LLaMA, StarCoder) to analyze semantic patterns in variable naming, logicflow, and revision history—capturing subtle stylistic cues that separate human-written code from AI-generated output.</li><li>Combine metadata-based behavioral signals (typing speed, redo/undo patterns, error traces) with LLM-based embeddings of code snippets to build a robust classifier that outperforms traditional ML models in detecting AI-assisted code.</li><li>Fine-tune lightweight LLMs on student-written brute-force solutions to improve recognition of authentic novice coding styles, enabling accurate identification of AI-authored submissions while maintaining adaptability across domains.</li></ul>	
<b>AI Engineer</b> <i>Pune, Maharashtra</i>	Tech Mahindra Nov 2021 – Jun 2023
<ul style="list-style-type: none"><li>Integrated AI and NLP models into full-stack applications, such as an AI-driven resume screening module that automated 80% of manual matching by extracting key skills and comparing job descriptions using Python ML pipelines.</li><li>Developed Q&amp;A system using BGE Transformer and semantic search.</li><li>Designed multi-turn dialogue system with focus on ethical prompt handling and explainability.</li></ul>	
<b>AI Engineer</b> <i>Hyderabad, Telangana</i>	Ineuron Feb 2019 – Oct 2021
<ul style="list-style-type: none"><li>I had compassed my experience based on Artificial Intelligence and Machine Learning for the duration of 2 years.</li><li>Developed a project based on AI and ML and it is a basic working application based on all algorithms.</li><li>Implemented RESTful APIs and relational database models in PostgreSQL to manage goods, yard listings, and user transactions, ensuring optimized data retrieval and scalability under multi-user access.</li></ul>	

## PROJECTS

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### JobPortal - AI Integration

- Developed a full-stack Job Portal web application using React for the frontend and Spring Boot for the backend, featuring user authentication, job posting, resume uploads, and personalized dashboards.
- Integrated AI-powered resume screening, extracting 10–15 key skills per resume using NLP, and automating 80% of the manual job-resume matching by comparing job descriptions and applicant keywords.
- Deployed the frontend on Vercel and backend on Render, configured environment variables, and optimized for production using Gunicorn, Whitenoise, and PostgreSQL.

### AI/ML Driven Platform Using AutoML | *Integration of Full Stack and AI*

- Used data extraction, feature engineering, and AutoML for scalable model development and evaluation.
- Integrated with PostgreSQL, MySQL, and MongoDB—aligned with structured and semi-structured data sources.
- Employed model testing, performance validation, and reporting using confusion matrix and accuracy metrics.

### Let Farmers Decide — Full Stack Web Application

- Developed Chatbot for company requirements and to respond User query and deployed LLM based with Retrieval Augmented Generation
- Implemented RESTful APIs and relational database models in PostgreSQL to manage goods, yard listings, and user transactions, ensuring optimized data retrieval and scalability under multi-user access.
- Demonstrated use of Conversational AI, semantic retrieval, and secure API architecture.

### Context-Aware Chatbot using RAG, LangChain, and LLMs (Fine-tuning FAISS/ChromaDB)

- Deployed an LLM-based chatbot with Retrieval-Augmented Generation using FAISS and ChromaDB.
- Designed multi-turn dialogue system with focus on ethical prompt handling and explainability.
- Demonstrated use of Conversational AI, semantic retrieval, and secure API architecture.

### PhotoRealistic Image SuperResolution Using SRGAN

- Implemented deep learning model using PyTorch and SRGAN to enhance low-resolution images.
- Applied GAN architecture with generator and discriminator networks.
- Evaluated model using metrics like PSNR and SSIM. Potential applications in medical imaging and surveillance.

## SKILLS

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**Programming:** Python, Java, C++, OOPs, DSA,

**AI/ML Frameworks:** PyTorch, TensorFlow, Scikit-learn, AutoML, LangChain, OpenAI API, NLP, Agentic AI, RAG, GANs, MLOps

**Natural Language Processing:** BERT, LSTM, GRU, Transformers, Attention, RAG, Agentic AI

**Neural Networks:** Deep Learning, Convolution Neural Networks, ANN, RNN

**Version Control & Collaboration:** Git, GitHub

**Database:** MySQL, PostgreSQL, MongoDB

**Version Control:** Git, GitHub

**Languages:** Telugu (Native), English (Professional), Hindi