PAVAN KUMAR DIRISALA

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OBJECTIVE

Innovative **Software Development Engineer (SDE)** specializing in **AI and Machine Learning**. Skilled in building and deploying **ML/DL models**, optimizing **data workflows**, and leveraging emerging technologies to solve real-world problems. Committed to continuous learning and delivering impactful, intelligent solutions.

EDUCATION

Bachelor of Technology in Computer Science and Engineering — Expected May 2026

KL University, Andhra Pradesh — **CGPA: 9.61 / 10.0**

SKILLS

Programming	Python, SQL
AI & NLP	NLP, Transformer Models (BERT), Attention Mechanisms
LLMs & RAG	Retrieval-Augmented Generation, LLM Integration, Prompt Engineering
Machine Learning	Applied Machine Learning, Deep Learning, Model Evaluation, Explainable AI
Research Tools	PyTorch, Hugging Face Transformers, Scikit-learn, FAISS, Git

EXPERIENCE

AI/ML Engineer Intern — Labmantix, Remote — Jun 2025 – Nov 2025

- Developed machine learning models for time series forecasting and image classification using Python and FastAPI.

- Deployed scalable solutions on Streamlit and Hugging Face Hub for real-time data inference and visualization.

- Conducted applied AI research projects focused on NLP, LLM grounding, and explainable decision-making systems.

ACHIEVEMENTS

- Secured **2nd place** in a national-level hackathon for building a **context-aware, LLM-powered financial assistant** using RAG.

- Designed and evaluated a **BERT + BiLSTM + Attention** model for resume–job matching, achieving **85% accuracy** and improved interpretability.

- Completed multiple applied AI research projects focused on **NLP, LLM grounding, and explainable AI**.

PROJECTS

FinBot Connect – Human-Centered Banking Assistant (RAG + LLM) — Jun 2025 – Aug 2025

- Built a **context-aware RAG system** using transformer embeddings and **FAISS** to support evidence-grounded banking queries.

- Enabled **secure personalization** by conditioning responses on authenticated user context and applied prompt-based grounding to reduce hallucinations.

- Evaluated on **1,000+ queries**, achieving **85%+ accuracy** and earning **2nd place at AiroThon 2025**.

Resume Screener – (BERT + BiLSTM + Attention) — Apr 2025 – Jun 2025

- Developed an **AI-powered resume screening model** using **BERT embeddings**, **BiLSTM**, and an **Attention mechanism** to rank candidates based on job-role relevance.

- Implemented a scalable pipeline for preprocessing, feature extraction, and classification with **TensorFlow** and **Scikit-learn**.

- Achieved **85% test accuracy** on real-world datasets; optimized for interpretability and recruitment efficiency.

CERTIFICATIONS

Red Hat Certified Application Developer (EX-183) – Red Hat (2024);

AWS Cloud Practitioner – Amazon Web Services (2024);

Career Essentials in Generative AI – Microsoft & LinkedIn (2024);

Certified Essentials Automation Professional – Automation Anywhere (2025)