Karthik Pasupuleti

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Education

- **NRI Institute of Technology - GPA: 8.8/10.0** — *August 2023 -Present*
  Bachelor of Technology in Artificial Intelligence and Machine Learning — Vijayawada, India
- **Dhanekula Institute of Engineering and Technology - GPA: 9.2/10.0** — *June 2020 - June 2023*
  Diploma in Electronics and Communication Engineering — Vijayawada, India

Skills

- **Programming Languages : Python , SQL**
- **Machine Learning :** Transformer Models, **Deep Learning**, **Computer Vision**, LLMs, **NLP**
- **Web and Data Visualization : HTML**, CSS, **Flask**, Matplotlib, Sckit-learn, Seaborn, **PowerBI**, Tableau
- **IDEs and Tools : VS Code**, **PyCharm**, Jupyter Notebook, Colab, DBeaver **GitHub**, Hugging face
- **Databases : MySQL**, **MongoDB**, PostgreSQL, TimescaleDB

Work Experience

- **EFFTRONICS SYSTEMS PRIVATE LIMITED [🌐]** — *December 2022 - June 2023*
  System Administrator Intern - On-Site — Mangalagiri, India
  - Enhanced **IT infrastructure** efficiency by implementing automated monitoring, proactive issue resolution, and network optimization, reducing response times by **20%** and minimizing downtime.
  - Optimized **cloud data workflows**, cutting manual processing by **30%** and improving system accuracy.
- **CODEGNAN IT SOLUTIONS PVT LTD (APSCHE) [🌐]** — *May 2024 - July 2024*
  Generative AI Intern - Hybrid — Vijayawada, India
  - Developed and optimized **Machine Learning** and **Deep Learning models**, including **CNNs** for image classification and **AI-driven** video generation.
  - Gained hands-on expertise in **Quantum Computing**, **cloud integration**, and **prompt engineering**, enhancing AI scalability and deployment.
- **AP STATE CIVIL SUPPLIES CORPORATION LIMITED [🌐]** — *June 2025 - Present*
  Project Intern - On-Site — Vijayawada, India
  - **Analyzing large-scale** procurement, distribution, and inventory data to **optimize supply chain** efficiency.
  - Collaborated with **Government officials** in meetings and reviews to support **data-backed decisions**.

Projects

- **Classification of Iris Flower using various ML Algorithms** — *January 2024 - March 2024*
  Tech Stack: Python, Scikit-learn, Matplotlib, Seaborn [🐙]
  - Developed a machine learning pipeline using **Logistic Regression**, **Decision Tree**, **SVM**, **Naive Bayes**, **Neural Networks**, and **XGBoost**, achieving **95.5%** accuracy.
  - Optimized model performance with **GridSearchCV**, **RandomizedSearchCV**, and **Repeated Stratified K-Fold cross-validation**, enhancing accuracy and reliability.
- **Automated Data Monitoring and Alert System for DWLRs** — *May 2024 - July 2024*
  Tech Stack: Python, Flask, Timescale Database, Machine Learning,Web Tech's, Visualization Libraries [🐙]
  - Developed an anomaly detection system for **14,000+ DWLRs** with **95%** failure detection accuracy.
  - Implemented real-time alerts, reducing stakeholder response time by **50%** and optimizing maintenance for **20,000+ DWLRs**.

Certifications and Publications

- Machine Learning Specialization, **DeepLearning.AI, Stanford University**
- CS50's Introduction to Computer Science, **HarvardX**
- IT Automation with Python Specialization, **Google**
- Advanced Data Analytics Specialization, **Google**
- AI-IoT Powered Dual-Stage Crowd Risk Detection System , **PATENT**
- AI and Deep Learning for Adolescent Health Monitoring and Intervention, **PATENT**
- Automated Monitoring and Real-Time Alert System for DWLRs, **IEEE (ICCCNT 2025)**
- AutoGrader: ML & NLP-Based Handwritten Exam Evaluation System , **IEEE (ICWITE 2025)**
- Short-to-Long: An AI Powered Pipeline for Video-to-Reel Sumarization, **IEEE (ICCCNT 2025)**