PRANEETH SAI CHUNCHU

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EXPERIENCE

AI Intern Advisor - LifeSizeAgents.ai   **Mar 2025 – Present**

i. Engineered backend pipelines with Python, LangChain, CrewAI, and vector databases to support LLM-powered AI Agents for real-time mall navigation and customer assistance.

ii. Integrated 3D avatar models (.glb) in a React + Three.js frontend with backend APIs to enable life-size interactive avatars and virtual try-on experiences.

iii. Developed Retrieval-Augmented Generation (RAG) pipelines using embeddings, semantic search, and knowledge graphs to improve contextual store and product recommendations.

iv. Optimized multi-agent orchestration, prompt engineering, and embedding models for scalable, low-latency conversational AI systems, enhancing customer engagement and boosting sales.

Data Scientist - KaarTech Solutions   **Jan 2023 – Dec 2023**

i. Developed and deployed machine learning models (classification, regression, clustering, NLP) using Python, scikit-learn, TensorFlow, and PyTorch to solve complex business problems.

ii. Applied statistical modeling, hypothesis testing, and feature engineering to improve model accuracy and generalization on real-world datasets.

iii. Built and fine-tuned natural language processing (NLP) models using transformers and embeddings for text classification and information retrieval tasks.

iv. Conducted model evaluation and optimization using cross-validation, hyperparameter tuning, and advanced metrics to ensure production-ready performance.

Research Assistant - GVPCE   **July 2022 – Nov 2022**

i. Built ETL pipelines in Python (Pandas, PySpark) to clean and prepare large-scale datasets for analysis.

ii. Performed EDA and statistical analysis to generate insights and support research outcomes.

AI/ML PROJECTS:

End-to-End MLOps Pipeline for Predictive Maintenance of Turbines.   **June 2025 – Aug 2025**

- Developed modular 6-stage MLOps pipeline with Airflow from ETL to prediction.
- Integrated **MLflow** for experiment tracking, model registry, automated hyperparameter tuning, and model versioning.
- Containerized with Docker, automated CI/CD via GitHub Actions, and served models through FastAPI.
- Monitored data, drift, and model performance with Grafana and Prometheus.
- Project Link - Github Code

Attendance Management System Using CNN and HOG   **May 2024 – July 2024**

- Developed a real-time web application with Python, Django, HTML/CSS, and JavaScript to manage user records and monitor attendance.
- Integrated OpenCV and CNNs for accurate facial recognition and real-time tracking.
- Containerized the application using Docker and deployed it on AWS EKS for scalable cloud orchestration.
- Configured a custom domain for public access, demonstrating full-stack development and cloud deployment expertise.
- Project Link - Github Code

CERTIFICATIONS &ACHIEVEMENTS:

1. **AWS Certified ML Engineer - Assosiate**   2. **Databricks Certified Associate Data Engineer**
3. **Complete MLOps Bootcamp by Udemy**   4. **ML in Production by Andrew**
5. **AWS Certified Cloud Practitioner - Foundational**
6. **Solved 350+ Python (DSA) problems and 70+ SQL problems on LeetCode, earning 7+ LeetCode badges.**   **Leetcode Profile**

SKILLS:

Programming Languages	Python, Java, C, JavaScript.
Frameworks	Django, Flask, FastAPI, React.js, React Three.js.
Cloud Platforms	AWS and Databricks.
ML/AI & LLMs	TensorFlow, PyTorch, Scikit-learn, OpenAI APIs, BERT, Dlib, Hugging Face, OpenCV, GPT.
Database Systems	MySQL, PostgreSQL, MongoDB.
DevOps & Tools	Docker, Kubernetes, Git Actions, Jenkins, AWS EKS.
Model Monitoring and Tracking	MLflow, DVC, Prometheus and Grafana.
Orchestration Tools	Apache Airflow, AWS Step Functions, Lamda, Glue.

EDUCATION:

Master of Science, Computer Science | GPA: 3.87 / 4.0   **Jan 2024 – 2025**
University of Alabama at Birmingham

Bachelor of Technology, Electronics and Communication Engineering | GPA: 8.8 / 10   **June 2019 – April 2023**
Gayatri Vidya Parishad College of Engineering, Visakhapatnam, India

Relevant Course Work: Data Structures and Algorithms, Database Systems, Machine Learning, Deep Learning, Cloud Computing, Data Mining, Advanced Web Applications, Advance Algorithms and Apps.