PRITHEEV LINGESWARAN

Chennai, India | pritheevlingeswaran123@gmail.com | +91 9363919941
LinkedIn: linkedin.com/in/pritheev-lingeswaran-593636341
GitHub: github.com/PritheevLingeswaran

MACHINE LEARNING INTERN | NLP & APPLIED AI SYSTEMS

Second-year B.Tech CSE (AI & ML) student focused on building practical machine learning systems, applied NLP pipelines, and deployable AI solutions.

TECHNICAL SKILLS

- **Programming:** Python, SQL
- **Machine Learning:** Supervised & Unsupervised Learning, Feature Engineering, Model Evaluation, Cross-Validation
- **NLP & LLMs:** Text Classification, Embeddings, Semantic Similarity, Prompt Engineering
- **Frameworks:** scikit-learn, TensorFlow, PyTorch, HuggingFace Transformers
- **Systems & Data:** FastAPI, PostgreSQL, Vector DBs (FAISS/Chroma), Kafka (basics), Redis
- **Tools:** Git/GitHub, Jupyter, Google Colab, Linux | **Cloud:** AWS/GCP (basics)

PROJECTS

Production-Grade Hybrid RAG System (rag-smart-qa)

- Designed and deployed a production-grade Hybrid RAG system (BM25 + dense embeddings) with strict citation grounding and zero-hallucination enforcement.
- Built a fully modular, config-driven architecture with evaluation framework measuring precision@k, recall@k, hallucination rate, confidence calibration, and cost per query.
- Containerized and productionized a FastAPI-based API with structured logging, monitoring, and pluggable embedding/LLM backends for scalable deployment.

Production-Grade Real-Time ML Drift Detection System (realtime-ml-drift)

- Architected a production-grade real-time ML streaming system with online feature engineering, unsupervised anomaly detection (Isolation Forest), and deterministic replay support.
- Implemented data and prediction drift detection (KS, PSI, ADWIN) with safety-first threshold adaptation guardrails (bounded limits, cooldown, controlled step size).
- Built an observable ML service using FastAPI and Prometheus with structured logging, CI enforcement, and containerized deployment for reproducible production use.

Production-Grade ML Decision & Evaluation Platform (ml-failure-analysis-framework)

- Architected a production-grade ML evaluation platform enabling cost-sensitive model selection and slice-level failure analysis across multiple classifiers.
- Replaced aggregate metric comparison (Accuracy/F1) with decision-theoretic threshold optimization using configurable FP/FN cost matrices to minimize expected business loss.
- Built API-driven evaluation service exposing model comparison, slice diagnostics, error clustering, and defensible model recommendations with reproducible, config-driven workflows.

ACHIEVEMENTS

- Maintained active GitHub repositories with clear READMEs and reproducible ML pipelines
- Conducted comparative evaluation of ML models using multiple metrics

EDUCATION

B.Tech – Computer Science Engineering (Artificial Intelligence & Machine Learning)
SRM Institute of Science and Technology, Kattankulathur
2024 – 2028 (Expected)

CERTIFICATIONS

Andrew Ng – Machine Learning | DeepLearning.AI – NLP / LLM Fundamentals |
Oracle OCI 2025 – Generative AI Professional | IBM – AI Essentials V2