

Gokul B

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Proficient in Python(Pandas, Numpy), and SQL with expertise in Machine Learning(Scikit-learn), Deep Learning(Pytorch), Natural Language Processing(SpaCy, NLTK), Generative AI and Agentic AI.

Key Skills

- Programming Languages:** SQL(Structured Query Language), Python (Pandas, NumPy)
Machine Learning & AI: Machine Learning, Deep Learning, NLP, Computer Vision, Generative AI, LLMs, RAG, HuggingFace
Libraries & Frameworks: Scikit learn, PyTorch, NLTK, SpaCy, Seaborn, Matplotlib, LangChain, LangGraph, ChromaDB
Tools & Platforms: Streamlit, FastAPI, AWS SageMaker, Jupyter Notebook, VS Code, PyCharm, GitHub, MLOps

Professional Experience

- Feynn Labs** Remote
Machine Learning Intern (Internship) Nov 2024 - Jan 2025
- Executed customer segmentation analysis in the EV market using KMeans clustering and statistical analysis, enabling targeted marketing strategies that increased qualified lead generation by 30%.
 - Architected an automated EDA pipeline using Python and Pandas, slashing data preprocessing time by 75% (2 hours to 30 mins) and accelerating project kickoff cycles.
 - Curated and structured over 50 AI and machine learning resources into defined learning paths, improving onboarding efficiency and accelerating team readiness.

Projects

- College Website RAG Chatbot** [Project Link](#)
[Python / LangChain / Groq LLaMA-3 / ChromaDB / HuggingFace] Dec 2025 - Jan 2025
- Engineered a production-grade Retrieval Augmented Generation chatbot using LangChain and ChromaDB, ingesting college websites to deliver grounded answers with 95% accuracy across 100 plus user queries.
 - Designed a persistent ingestion and retrieval pipeline with recursive chunking and top-k semantic search, improving answer precision above 90 percent while reducing hallucination rate by 40% through prompt-guided grounding.
 - Integrated Groq-hosted LLaMA-3.3-70B with source attribution and vector normalization, increasing retrieval depth, response stability, and factual correctness consistently under real-world queries.

- CNN Based Defect Detection for Manufacturing** [Project Link](#)
[Deep Learning / Python] Jan 2025 - Feb 2025
- Developed a computer vision model for vehicle damage detection using CNN architectures, improving model accuracy from 57% to 80% through EfficientNet, ResNet, and Optuna based tuning.
 - Expanded dataset size by 35% (3,000 to 4,750 images) using targeted data augmentation, strengthening model generalization.
 - Built and deployed a FastAPI-based real time inference service for object detection, enabling API driven predictions that reduced manual inspection effort by 60% and shortened dataset preparation time from 3 hours to 1 hour.

- Real Time Credit Risk Analysis and Decision Making** [Project Link](#)
[Machine Learning / Python] Nov 2024 - Dec 2024
- Formulated and optimized a credit risk prediction model using Logistic Regression, achieving over 90% Recall by addressing class imbalance and applying hyperparameter tuning and cross validation techniques.
 - Performed feature selection using correlation analysis and Information Value (IV) to eliminate redundant variables, improve model stability, and enhance predictive performance.
 - Released a real time decision system processing 100+ predictions per session, reducing manual review effort by 40 percent and improving analyst efficiency.

Education

- Vels Institute of Science, Technology and Advanced Studies** Chennai
Bachelor of Technology - Artificial Intelligence and Machine Learning Aug 2022 - May 2026
CGPA: 7.82

Certifications

- IBM Data Science Professional Certificate - Coursera** [Certification Link](#)
Deep Learning: Beginner to Advanced - Codebasics [Certification Link](#)
Machine Learning A-Z - Udemy [Certification Link](#)
Statistics for Data Science and Business Analysis - Udemy [Certification Link](#)