

## SUMMARY

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AI/ML developer with hands-on experience building real-world machine learning, deep learning, and generative AI solutions. Strong foundation in statistical analysis, model deployment, NLP, and LLM integration. Adept at solving complex business problems using data-driven approaches. Looking to transition into AI/ML Engineering or Data Science roles with a focus on impactful and scalable AI solutions.

## PROJECTS

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### AI powered PDF Question-Answering System using RAG Architecture

- Built a RAG-based PDF QA system using Gemma 2 LLM and LangChain for intelligent context-aware responses.
- Employed LangChain for chunking documents and managing query chains, and InMemoryVectorStore for efficient semantic search.
- Enabled context-aware Q&A with document-specific responses using vector embeddings and prompt templates.
- Developed an interactive Streamlit UI allowing drag-and-drop PDF input and real-time chat interface.

### Cold Email Generator

- Developed an AI-powered app for personalized cold email generation using Llama 3 8B Instant via Groq API.
- Automated job posting parsing and project matching with NLP pipelines and vector search (ChromaDB).
- Built a Streamlit UI and integrated LangChain for advanced language modeling and relevance scoring.

### Insurance Premium Prediction

- Built an end-to-end regression solution for insurance premium prediction using LightGBM.
- Automated data preprocessing, feature engineering, and model evaluation for improved accuracy.
- Visualized feature importance and achieved a mean CV RMSLE of 1.0524.

### Bank Direct Marketing: Term Deposit Subscription Prediction

- Analyzed customer response data from marketing campaigns to improve targeting and retention strategies.
- Engineered an ML pipeline using CatBoostClassifier to predict term deposit subscriptions for a bank.
- Handled class imbalance and applied feature encoding, achieving a cross-validated F1 score of 0.454.

## SKILLS

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- **Programming:** Python, SQL, C#
- **Frameworks/Libraries:** LangChain, Huggingface Transformers, Streamlit, TensorFlow, Scikit-learn, CatBoost, ChromaDB (Vector Database), Keras, Matplotlib, Seaborn, Pandas, NumPy, etc.
- **Worked on:** Retrieval-Augmented Generation(RAG), Data Science, Deep Learning Machine Learning, etc.

## EXPERIENCE

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### HCLTech - Technical Lead

Oct 2022 - Present

- Working with projects in the service department, providing support for multiple applications.
- Proficiently work with .NET, SQL, and Excel to enhance application performance.
- Produce and deliver comprehensive analysis reports of the application to inform strategic decision-making for the executive team, utilizing advanced data analysis techniques and ensuring clear communication of key insights.

## CERTIFICATIONS

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- Supervised Machine Learning
- Fundamentals of Deep Learning
- Fundamentals of Visualization with Tableau
- Advanced Learning Algorithms
- Intermediate SQL Queries
- Power BI: Data Analysis

## EDUCATION

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**Indian Institute of Technology, Gandhinagar**  
Bachelor of Technology, Mechanical Engineering

2018 - 2022