

Professional Summary

- **Over 5 years of experience** in **applied machine learning, statistical modeling, data analytics, and data visualization**. Combined with 16 years of experience in management systems consulting, business operations, strategy and planning, software development, and delivering data-driven solutions.
- **Recently completed** the Advanced Management Program in Business Analytics (AMPBA) at the **Indian School of Business, Hyderabad**, deepening my expertise in delivering data-driven solutions through applied machine learning, statistical analysis, Big Data, Business Analytics, advanced techniques in NLP, computer vision, and generative AI.
- Hands-on experience gained through **20+ AMPBA coursework projects**, focused on developing AI-driven solutions across various domains, including capstone projects, end-to-end ML projects, and predictive analytics.
- **Results-oriented operations leader** with a proven track record of driving significant growth and operational excellence.
- Expertise in strategic planning, process optimization, client acquisition, and data-driven decision-making. Proven ability to deliver exceptional service and build strong client relationships in both public and private sectors.
- Proven ability to lead **end-to-end data science product development**, and business data analysis, predictive modeling, and testing to drive business profitability.
- Deep **domain knowledge** in finance, sales, management systems consulting, and operations.

Technical Skills

- **Programming & Scripting:** Python, R, SQL, C++, Matlab
- **ML/AI Frameworks:** PyTorch, Scikit-Learn, Hugging Face
- **Analytics:** Pandas, Neo4j, AWS SageMaker, SQL Server
- **GenAI & NLP:** OpenAI API, NLTK, Spacy, Llama, Mistral, FAISS, ChromaDB, LangChain, LlamaIndex, Ollama
- **DL:** CNN, LSTM, Transformer
- **Statistical Analysis:** Hypothesis testing, A/B Testing Regression, Bayesian, Monte Carlo simulation, Timeseries, Descriptive analytics, Data Visualisation, predictive analytics, Ensemble Models, Clustering, PCA.
- **Production:** MLOps, Git, Docker, Pipelines
- **CV Models:** Detectron2, YOLOv8, OpenCV

Soft Skills

- **Problem-Solving:** Develop data-driven solutions for complex business challenges
- **Leadership:** Manage teams and drive process improvements effectively
- **Adaptability:** Excel in dynamic environments, transitioning across software development, operations, and AI roles
- **Analytical Thinking:** Analyse and deconstruct complex problems to derive actionable insights
- **Stakeholder Management:** Maintain strong relationships and align solutions with business objective

Education

Advanced Management Programme in Business Analytics (AMPBA)

Indian School of Business, Hyderabad | Dec 2022- May 2024

Bachelor of Science in Electrical Engineering

Madhav Institute of Technology & Science, Gwalior, India | 2002- 2006

AMPBA Hands-on Data Science Projects

Medical Chatbot for Patient Records (July 2024 – Present)

- Building chatbot for understanding lab records for self-awareness of health records.

Computer Vision-Powered Smart City Waste Management Solution (Feb 2024 – May 2024)

- Developed a **bio and non-biomaterial segregation instance segmentation model** using **Detectron2** and **YOLOv8**.
- Deployed model on the **AWS** platform for cloud scalability and edge device accessibility, trained using **AWS SageMaker**.

Keywords: Computer Vision, Detectron2, YOLOv8, AWS SageMaker, AWS EC2, Mask R-CNN, Tensorboard.

GenAI-Powered Customer Feedback Analysis and Information Extraction (Nov 2023-Dec 2023)

- Utilized **GPT-4 API** for text analysis on airlines' customer feedback and transformed unstructured data to structured format.

Keywords: GPT-4, NLP, Text Analysis, Generative AI, Prompt Engineering,

Retrieval-Augmented Generation (RAG) System for Document-Based QA (Nov 2023 - Dec 2023)

- Developed a **RAG system** using **GPT-3.5 API** for knowledge retrieval from PDF and Word documents.
- Showcased expertise in **information retrieval** and **AI-driven question answering**.

Keywords: RAG, Agentic AI, Generative AI, NLP, Information Retrieval, Document Analysis, Q&A.

Graph-Driven eCommerce Recommender System (Dec 2023 – Jan 2024)

- Designed a **graph database** using **Neo4j** to implement a recommender system; visualized with **Bloom**.
- Boosted customer engagement and sales through **Collaborative Filtering** and **content-based filtering**.

Keywords: Recommender System, Neo4j, Collaborative Filtering, Machine Learning, Knowledge Graph, eCommerce.

AI-Driven Applicant Tracking System (ATS) for HR Efficiency (Apr 2023 – June 2023)

- Developed an **ATS** using **NLP** libraries (**NLTK**, **SpaCy**) and **Machine Learning** to automate candidate screening.
- Deployed on **Heroku** with **Streamlit** frontend; tracked model versions using **MLFlow**.
- Implemented project using **CRISP-ML(Q)** methodology for end-to-end execution.

Keywords: ATS, NLP, NLTK, SpaCy, CRISP-ML(Q), MLFlow, Streamlit

Professional Experience

Business Consultant

Freelance Consulting | Nov 2023 – Present

- Provided **data analytics consulting** using **descriptive, predictive, and prescriptive techniques**, driving **data-driven decision-making** and improving ROI.
- Led **ISO 9001** implementations, optimizing **quality management systems** and ensuring high compliance.
- Applied **statistical analysis** to inform **business strategy** and enhance client operations.
- Delivered **data insights** through clear reporting and **visualizations**, improving client performance.

General Manager – Operations

A-Mark Ratings Pvt Ltd | September 2018 – Nov 2023

- Led the turnaround of an **ISO certification and inspection body**, driving the company from financial losses to upto **40% profit** in the yearly.
- Directed **strategic planning** and **process optimization**, enhancing operational efficiency and enabling data-driven decision-making across all functions.
- Spearheaded **marketing initiatives** to acquire new clients, targeting public, private, and governmental sectors, significantly expanding the client base.
- Enhanced **client engagement** through customized service offerings, securing long-term contracts with major public, private, and governmental entities.
- Managed and upgraded the **CRM system**, automating client management workflows and improving **revenue generation** through enhanced data tracking and operational efficiency.
- Implemented **data-driven strategies** for internal operations, improving decision-making and service delivery across departments.

Chief Executive Officer

Greenmark Consulting Services | March 2014 – August 2018

- Co-founded and grew a consultancy firm providing quality management services, including ISO 9001 certification, to businesses across India.
- Achieved consistent revenue growth and high client retention through targeted **business development** and superior service delivery.
- Implemented **data-driven lead generation** systems using **Python** and API integrations, enhancing operational efficiency and market reach.

Research Associate/Programmer

Cambridge Market Analysis Corporation, Greater Boston Area, Massachusetts, USA | May 2008 – Dec 2011

- **Designed and implemented prediction systems** for futures/commodities markets, utilizing object-oriented design and real-time market modeling.
- **Developed and backtested advanced trading algorithms**, improving the accuracy and profitability of trading strategies.
- **Utilized machine learning techniques** like K-Nearest Neighbour (KNN) to identify patterns in financial markets, enhancing forecasting accuracy.
- **Managed complex data systems** using MS SQL Server, ensuring efficient data management and retrieval.

Online Course Certifications

- **Generative AI with Large Language Models**- AWS (DeepLearning.AI) (Duration: 3 Months)
- **Statistical Inference**- Johns Hopkins University (Coursera) (Duration: 1 Month)
- **Machine Learning Specialisation** - Stanford University (Coursera) (Duration: 4 Months)
- **Supervised Machine Learning: Regression and Classification**- Stanford (DeepLearning.AI)
- **Machine Learning in Production**- DeepLearning.AI (1 Month)

Awards & Activities

- **Gustel and Ernst Giessen Memorial Award (2009)** for outstanding research performance.
- **Project Leader** for Boston Cares, overseeing volunteer teams across multiple community projects.