

Skills

- **Programming Languages** : Python, SQL Server, PostgreSQL, R, Java, JavaScript, C++(Basic), C# (Basic), COBOL
- **Libraries and Frameworks** : Scikit-learn, TensorFlow, Keras, NumPy, Pandas, Matplotlib, Seaborn, Plotly, Flask, Streamlit
- **Tools** : Development (Jupyter Notebook, VSCode, Git/GitHub/GitLab, Docker, Kubernetes), Visualization (Tableau, Power BI), API Deployment (Flask, FastAPI, Ec2 server, streamlit), CI/CD Pipelines (Jenkins, GitHub Actions), AWS S3, Azure Blob, SAP
- **Other Skills** : Mathematics and Statistics (Linear Algebra, Probability and Statistics, Time Series Analysis, Bayesian Methods), Emerging Areas (Generative Models : GPT, Diffusion Models, Variational Autoencoders (VAEs), LangChain, LlamaIndex), Sale

Experience

Sr Data Scientist

Dec 2023 - Present

Fractal Analytics

- Designed and directed Proof of Concepts (POCs) for applying data science approach and reducing time-to-market by 10%.
- Led Finance Analytics, delivering insights for budgeting & risk analysis, boosting efficiency & informed decisions by 20%.
- Collaborated with stakeholders to define financial KPIs & align data strategies, improving planning by 25% & boosting efficiency by 20%, leading to enhanced business outcomes.
- Collaborated with stakeholders to identify critical financial KPIs and align data-driven strategies with organizational goals, resulting in a measurable impact on financial planning accuracy and business outcomes.
- Lead and mentored team via training & hands-on guidance, boosting performance & delivery efficiency of team by 15%.
- Worked closely with cross-functional teams, including sales, product management, and business stakeholders, to define and execute data-driven strategies, ensuring seamless integration and achieving a 30% improvement in project success rates.
- Continually enhanced expertise in data science and AI through courses and online resources, integrating state-of-the-art technologies into projects to deliver innovative solutions and achieve a 15% improvement in model performance.

Sr. Software Engineer

Jan 2022 - Dec 2023

KPIT

- Optimized resource allocation in tools, achieving a 98% improvement and enhancing project accuracy through the development of an ML model for resource utilization prediction.
- Spearheaded model development, validation, implementation, and in-product integration of a deep learning model into a micro-service, achieving a 50% reduction in resource consumption by enhancing accuracy.
- Led the Stability & Performance team in identifying issues and implementing effective solutions.
- Improved production performance by 20% on the cloud via CPU and code optimization, and automation.
- Collaborated with the VP, CTO, and key-stakeholders to establish and implement processes and guidelines.

Software Development Engineer (Backend) + Internship

Jan 2021 - Dec 2021

NetApp

- Spearheaded the API documentation process, focusing on comprehensive test trade-offs and streamlining best code practices for migration from the old to the new framework resulting in 20% performance increase.
- Conducted research, presented data-driven findings, and optimized the backup system to enhance efficiency and reliability, positively impacting the \$5.744 billion Cloud revenue.

Data Scientist / Freelance / Consultant

Jul 2018 - Dec 2020

Upwork

- Maintained regular communication with customers to ensure project success and achieve a 4.8 rating for customer satisfaction and good quality code for many startups located in the U.S. and U.K.
- Demonstrated strong management skills, resulting in extension and positive feedback from clients.

Projects

Stock Market & Commodity Forecasting | Upwork | Python, TensorFlow, Time series

- Designed and deployed an AI-driven forecasting system using LSTM, ARIMA, and Gaussian Regression for better accuracy.
- Integrated macroeconomic indicators, supply-demand trends, and geopolitical risks to improve forecast accuracy by 7%.
- Built an interactive financial insights dashboard to enhance executive decision-making and risk management strategies.
- Optimized hedging strategies with AI-driven forecasts, reducing portfolio risk exposure by 20% in volatile market conditions.

Investor Transcript Summarization | Fractal | Gen-AI and RAG System | Python, OpenAI, VectorDB

- Developed Generative AI and Retrieval-Augmented Generation (RAG) to summarize investor transcripts.
- Integrated pre-trained language models like GPT-4o, processing over 10,000 financial documents to optimize efficiency.
- Enabled users to summarize investor calls, earnings reports, and financial updates, by reducing retrieval to 50%.
- Combined real-time data retrieval with generative AI in RAG, boosting user satisfaction by 25% and engagement by 20%.
- Empowered financial analysts and investors with insights, boosting decision-making efficiency and productivity by 40%.

Distributor Fraud Detection | Fractal | largest beverage | Anomaly Detection | DBSCAN, SHAP, Azure

- Developed an AI-powered fraud detection system using DBSCAN, Isolation Forest, and behavioral analytics to detect fraud.
- Built a geolocation-based anomaly detection pipeline in Python and SQL, identifying 50%+ sales concentration anomalies.
- Reduced fraud investigation time by 40% through automated detection workflows and risk-based distributor prioritization.
- Improved financial oversight and revenue protection by \$7M annually by optimizing fraud detection and risk assessment.

AI-Powered Conversational Assistant | Personal | OpenAI Gemini, Hugging Face NLP Models, Python

<https://dhrubhatt-aichat.streamlit.app/>

- Designed an AI-powered conversational assistant integrating OpenAI, Gemini, and Hugging Face NLP models.
- Leveraged state-of-the-art natural language generation capabilities to handle complex user queries, and recommend actions.
- Extend to wide applications, including customer support, data retrieval, and task automation, with conversational interface.

Travel Website | Upwork | Flask, JavaScript, CSS, Responsive UI, Automation, User Analytics

<https://www.maachamundatravel.com/>

- Developed a dynamic, user-friendly travel platform using Flask, HTML, and CSS to enhance the travel planning experience.
- Implemented responsive design to enable seamless navigation across devices and user demographics.
- Integrated advanced search filters for destinations, and activities by processing over 5,000 travel options.
- Enhanced user engagement by 40% and increased booking conversions by streamlining travel planning and booking processes, boosting productivity for travelers and businesses alike.

AI-Driven Resource Prediction | KPIT | ML, DL, Version Control, Docker, Jenkins

- Built ML models from scratch, deployed on on-prem cloud with microservices, achieving 99.5% uptime & auto-scaling.
- Developed end-to-end AI pipelines with version control, boosting model efficiency by 30% & reducing deployment time.
- Engineered real-time ML workflows with monitoring & alerting, cutting resource wastage by 40% on on-prem cloud infra.
- Optimized DL-based predictions with microservices, reducing inference latency by 50% & ensuring fault tolerance.
- Deployed ML models on Kubernetes, enabling 95% CI/CD automation & seamless rollback with Jenkins & Docker.
- Integrated monitoring dashboards, improving issue resolution speed by 60% & ensuring continuous model observability.

AI-Driven Deduction Classification | Fractal | Largest Food Companies | PySpark, LIME, OCR, FastAPI

- Built an ML-based deduction classification system using NLP and Decision Trees to automate financial reconciliation.
- Developed a data pipeline in Python and Spark, integrating SAP and Anaplan to process over 13M transactions monthly.
- Increased revenue recovery by 35% by detecting incorrect and fraudulent claims through automated classification.
- Reduced manual audit efforts by 50% with automated deduction validation, improving efficiency and accuracy.

Achievements

- Earned Over 170 Certifications from Leading Online Learning Platforms like Coursera, Hive, Percipio, Udemy and more.
- Contributing to the development of an streamlit open-source machine learning library.
- Marketplace Simulation: Worldwide in Top 4% Percentile 1st on college till that date.

Education

Scaler

2024

Specialized in Software Development & Problem Solving

Design Patterns for Scalable Applications, Distributed Systems and Microservices, Software Engineering Principles, Databases & SQL, Low-level design, High-Level Design, Data Engineering, DSA for Competitive Programming, Product Management

O.P. Jindal University

2023

MBA in MBA | 7.7%

Business Analytics, Financial Modeling and Forecasting, Strategic Management and Operations, Strategic resource allocation, Stakeholder collaboration, Financial Technology, Project Management, Leadership and Collaboration, Data-Driven Decision

BITS Goa

2021

ME / M.Tech in Computer Science | 8.5%

Machine Learning Algorithms, Predictive Modeling and Forecasting, Big Data Technologies (Hadoop, Spark), Deep Learning Frameworks, Natural Language Processing (NLP), Cloud and Deployment, Data Visualization and Storytelling, Research Work

Dharmsinh Desai University

2018

BE/B.Tech/BS in Computer Science | 8.2%

Object-Oriented Programming (OOP), Database Management Systems (DBMS), Operating Systems, Statistical Analysis, Software Architecture, Web Technologies, Computer Networks, Data Structures and Algorithms, Programming Paradigms

PUBLICATIONS

A. Kharat, A. Patel, D. Bhatt, N. Parikh, and H. Rathore. Emotion recognition using multimodalities. In Hybrid Intelligent Systems: 20th International Conference on Hybrid Intelligent Systems (HIS 2020), December 14-16, 2020, pages 309–319. Springer, 2021.