

RAKESH DESHALLI RAVI

(312) 687-4629 | raki.dr19@gmail.com | github.com/Rakesh-Deshalli-Ravi | linkedin.com/in/rakesh-deshalli-ravi

SUMMARY

Artificial Intelligence and Machine Learning professional with a strong academic background and graduated from MS in Data Science in Nov 2024 with 4 years of experience in designing, developing, and deploying advanced AI algorithms, machine learning models, and data visualization tools. Proven ability to integrate AI solutions into existing systems, optimize processes, and drive data-driven decision-making.

EDUCATION

DEPAUL UNIVERSITY

Chicago, IL

M.S. in Data Science | GPA: 3.91 | Summa Cum Laude | Merit Based Scholarship \$6000 |

Nov - 2024

- **Teaching Assistant:** Enhanced learning for over 120 students in Data Analysis and Regression by collaborating with faculty to develop engaging course materials and assessments, resulting in a 15% increase in class average grades through constructive feedback on assignments.
- Volunteered as a peer mentor for international students and participated in service immersion to rebuild houses affected by Hurricane Katrina in New Orleans, Louisiana.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY | Public University | Asian University Rankings: 143

Bengaluru, KA, India

Bachelor of Engineering | GPA: 3.03 | First class with distinction | Department Representative |

Jul - 2019

- Award: Best Student of the Department and recognized for four years as a volunteer, event organizer, and class representative.
- Teaching Assistant: Taught courses to 50+ students and recognized as the best peer mentor by students and professors.

SKILLS AND CERTIFICATIONS

Programming Languages: Python, R, SQL, C, C++, SAS

Data Visualization and Analysis: PowerBI, Excel, Tableau, Data Analysis, Predictive Modeling, Statistical Analysis, Performance Assessment, Sentiment Analysis, Behavioral Analysis, Regression Analysis, Data Processing, Hypothesis Testing (A/B Testing)

Leadership and Strategy: Leadership and Training, Strategizing, Problem-Solving, Interpersonal Skills, Cross-Functional and Collaboration

Machine Learning and AI: Deep Learning, Neural Networks, Machine Learning (Supervised, Unsupervised, Reinforcement Learning), Computer Vision, Natural Language Processing (NLP), Speech Recognition, Generative AI Models, Large Language Models (LLMs)

Tools and Frameworks: TensorFlow, Keras, PyTorch, Scikit-learn

Certifications from Udemy, Coursera and DeepLearning.ai: SQL Developer, Python, CNN Computer Vision, Gen AI, Large Language Model Fine Tuning and Prompt Engineering, Deep Learning.

SELECTED TOP PROJECTS

AI-Driven Data Visualization App

Jan 2024 - Present

- Developed a comprehensive data visualization app integrating 5 major Python libraries (Matplotlib, Plotly, Seaborn, NetworkX, and D3) to cover 95% of common visualization needs, and integrated Artificial Intelligence tools with a fine-tuned LLM model with 150+ parameters, enabling visualizations from text input, similar to Tableau or PowerBI but with advanced functionality.
- Designed for non-technical users to easily create, download, and present data visualizations, improving data accessibility and presentation.

Buzz Feeds - AI Content Summarization

Jun 2024

- Integrated backend systems and AI system models, enabling personalized content summaries through audio-visual presentations and generating news in video format using a multimodal pipeline with LangChain.
- Implemented features like source page links for content validation and a responsive chatbot, ensuring seamless user interaction and tailored content summaries. Developed a chatbot using RAG model and Astra Vector DB for efficient data storage and retrieval, enhancing user engagement by answering article-related queries.

Movie Recommender System

Mar 2024

- Developed an advanced content-based movie recommendation system for Netflix and Amazon Prime, leveraging IMDb data and utilizing item-based collaborative filtering with metrics such as cosine similarity, Euclidean distance, Manhattan distance, and Pearson correlation.

Deforestation Monitoring System

Nov 2022

- Developed an Artificial Intelligence-enabled IoT device to detect poaching and tree cutting, notifying authorities with geographic location; collected and analyzed a dataset of 4000+ audio files (e.g., wood chopping, chainsaw, forest sounds), converted to images using STFT. Innovation and trained a Convolutional Neural Networks in TensorFlow to detect wood cutting sounds, optimized to a lite model for edge device deployment.

EXPERIENCE

BEATS BY DRE (Apple Subsidiary)

New York, NY

Consumer Data Analytics & AI- Intern

Aug 2024 - Nov 2024

- Performed brand sentiment analysis to assess consumer perceptions, providing strategic insights to refine branding strategies.
- Analyzed Gen Z preferences for over-the-head earphones, providing actionable insights for product development.

LOWE'S (U.S Second Largest Retail Hardware Chain)

Bengaluru, KA, India

Data Science Specialist - Retail Space Planning

Sep 2022 - May 2023

- Increased seasonal product sales by 20% and product visibility by 15% by analyzing customer shopping data and optimizing store layouts to align product placement with buying tendencies.
- Achieved a 90% recall rate for customer purchase predictions by developing and deploying predictive models on GCP using Apache Airflow. Created a risk modeling algorithm with stacked ML techniques and K-means clustering for precise customer segmentation.

- Enhanced model performance by 7% through implementing an ML pipeline for data processing, model building, validation, and evaluation using PyTorch, scikit-learn, and Python.

ALPHA VENTURES (*Startup valued at \$500K focused on government projects to improve public infrastructure development*) Bengaluru, KA
Data Scientist | Recognized as Best Data Visualization and Stakeholder Communicator Jun 2021 - Sep 2022

- Improved early warning accuracy by 30% and boosted stakeholder engagement by 25% through analyzing stress and strain data from 100+ bridges and dams. Developed predictive models using PySpark and Pandas, creating impactful visualizations to enhance communication.
- Reduced mean squared error and enhanced real-time monitoring capabilities by implementing neural network architectures and establishing ML Ops practices. Utilized Tableau for effective data visualization and insights presentation.
- Optimized data organization and insights by classifying 85% of maintenance data into five clusters using NLP techniques, improving efficiency in data analysis and decision-making processes.

EARLY CAREER EXPERIENCE (BENGALURU, KA, INDIA)

MURUGAN CONSTRUCTION WORKS | (*Startup valued at \$1M focused on Best Construction Design*) | **Data Analyst** | Aug 2019 - May 2021

- Improved building performance and safety by 20% across 50+ projects by forecasting high-rise building data related to deflection, stress, and strain under varying loads, weather, and temperatures. Provided insights that optimized construction designs and maintenance strategies, enhancing overall project outcomes and structural integrity.

INDIAN INSTITUTE OF SCIENCE | (*#1 Education Institute in India*) | **Data Scientist Intern** | Jan 2020 - Dec 2020

- Developed AI algorithms to refine soil property data from over 2M samples, correlating with agro-climatic zones and enhancing data usability.
- Ranked in top 10 notable participant of All India Data Visualization Competition called Mapathon by Indian Space Research Organization.