

Rajat Singh

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EDUCATION

- Master of Science in Business Analytics and Artificial Intelligence** 01/2025 to 12/2026
University of Texas at Dallas, TX
Relevant Coursework: Business Analytics with R, Advanced Statistics, Applied Machine Learning, Big Data
- Bachelor of Technology in Civil Engineering** 07/2021
Manipal Institute of Technology

SKILLS

Programming & Databases: Python, R, SQL (PostgreSQL, MySQL, SQL Server), MongoDB, HiveQL
Business Intelligence & Visualization: Power BI, Tableau, Excel (Pivot Tables, Macros, Lookups), Streamlit, Jupyter
Statistical & Analytical Techniques: Regression Analysis, Hypothesis Testing, A/B Testing, Experimental Design, Causal Inference
Machine Learning & Artificial Intelligence: Predictive Modelling, Natural Language Processing (NLP), Deep Learning
Certifications: AWS Certified Cloud Practitioner (In Progress), Oracle Database SQL Certified Associate

EXPERIENCE

- Junior Data Scientist** 01/2022 to 12/2024
Softpro India Computer Technologies
 - Developed and deployed predictive models using Python and SQL to identify student churn patterns, achieving a 15% reduction in attrition and improving retention strategy effectiveness.
 - Built and implemented recommendation systems to personalize course offerings based on behavioural and enrolment data, resulting in a 10% increase in cross-course registrations.
 - Collaborated with cross-functional teams (engineering, product, and content) to design and execute A/B testing and statistical experiments (t-tests, regression analysis) to optimize features and user experience.
 - Performed feature engineering and data preprocessing on LMS activity logs and demographic datasets, enhancing model performance and boosting prediction accuracy by 12%.
 - Deployed dashboards and KPI reports via Power BI and Tableau for senior stakeholders, improving visibility into engagement, retention, and performance metrics.

PROJECTS

- Voice-Based Parkinson's Disease Detection, AIMD Presentation Night (2nd Place Winner)** 03/2025
 - Developed an AI-powered voice analysis system using Python, Librosa, and Scikit-learn to detect early signs of Parkinson's disease with 87% model accuracy.
 - Applied supervised machine learning algorithms (Logistic Regression, Random Forest, SVM) for classification and optimized model performance through cross-validation and hyperparameter tuning.
 - Presented results in a competitive analytics showcase, earning 2nd place out of multiple research teams judged by industry and academic experts.
- GenAI Financial Analyst, HackAI 2025 (LTIMindtree Challenge)** 04/2025
 - Designed and implemented a Retrieval-Augmented Generation (RAG) pipeline using GPT-4.0 to extract and summarize boardroom-level insights from 100+ page annual financial reports with precise page-level citations.
 - Developed metadata tagging and ESG risk identification frameworks to highlight material risks and eliminate noninformative corporate text, improving insight accuracy and compliance reporting.
 - Delivered a functional GenAI prototype that automated extraction of actionable business insights, improving analysis speed by 60% and reducing manual review effort for financial analysts.

ACHIEVEMENTS

- Awarded the Dean's Excellence Scholarship at the University of Texas at Dallas for academic distinction.
- Secured 2nd Place at AIMD Presentation Night for developing a Parkinson's Detection AI project.