RITIKA RANA

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Email | LinkedIn | GitHub | Portfolio

EDUCATION

July 2024
MASTERS OF DATA SCIENCE, The University of Queensland
Awarded the International High Achievers Scholarship, $10,000.

July 2021
BACHELOR OF INFORMATION TECHNOLOGY, KIET group of institutions, India
Graduated with First Division Honours
CGPA : 8.36

SKILLS

- Programming Languages - Python, R, Core Java, Javascript
- Databases - MySQL, Mongo DB
- Statistics & Mathematics - Probability Theory, Statistics (Descriptive & Inferential), Linear Algebra, Calculus
- Machine Learning & Deep Learning - supervised and unsupervised learning algorithms
- Data Wrangling & Preprocessing - data cleaning, manipulation, and transformation using libraries (Pandas and NumPy)
- Data Visualization - Tableau, Power BI
- Big Data & Cloud Computing - Hadoop, Spark, Azure, Kubernetes
- Version Control Systems - Git

EXPERIENCE

July 2021 - July 2022
SOFTWARE ENGINEER, Coforge Pvt Ltd (NIIT technologies Pvt Ltd)

- Developed a centralized vehicle parking solution for the Singapore Urban Redevelopment Authority, streamlining vehicle registrations, offense notices, court orders, and parking tickets for registered vehicles.
- Increased efficiency in handling use cases like processing PDFs and detailed vehicle reports by 50% through the implementation of the Model-View-Controller architecture.
- Reduced turnaround time by optimizing Java functions and streamlining read/write operations using appropriate data structures like maps and libraries, enabling seamless data management within applications.
- Engineered efficient PL/SQL queries using techniques like early data access, selective column retrieval, and subquery refactoring, resulting in improved code quality and maintainability.
- Streamlined the software development lifecycle (SDLC) through a comprehensive understanding of Java development, encompassing coding, testing, deployment, and validation.
- Enhanced application architecture and user experience by applying design patterns and refining user requirements for optimal results across multiple projects.
- Collaborated effectively with cross-functional teams to define project scope, translate requirements into actionable plans, and ensure project success.
- Solid backend development expertise with experience managing relational databases (MySQL, Oracle, PostgreSQL).

March 2021 - July 2021
INTERN, LRS Services Pvt Ltd

- Developed and tested user-facing features for a social media platform using JavaScript and ReactJS, leading to a 25% increase in user engagement in the beta testing phase.

- Researched and implemented Unit Testing with Jest to improve code quality and reduce future maintenance costs.
- Collaborated in weekly cross-functional team meetings, communicating project progress and contributing to brainstorming sessions for innovative solutions to identified challenges.
- Leveraged analytical thinking to identify inefficiencies in a legacy codebase and implemented refactoring techniques to enhance code readability and maintainability.

PROJECTS

July 2023 - November 2023
SELF PACED, Classification of Alzheimer's Disease

- Developed a deep learning model using Vision Transformers to classify Alzheimer's Disease and Normal Cognitive function from brain MRI scans.
- Incorporated novel techniques, Shifted Patch Tokenization and Local Self-Attention, to improve the model's ability to learn from limited data.
- Employed rigorous experimentation with hyperparameters and model complexities to optimize performance.
- Identified the challenge of overfitting in the current dataset and proposed potential solutions, including using a larger dataset or fine-tuning pre-trained models.

July 2023 - December 2023
SELF PACED, SpaceX Falcon-9 first stage Landing Prediction

- Investigated factors influencing successful first-stage landing of SpaceX Falcon 9 rockets using public data and machine learning.
- Collected and pre-processed launch data from SpaceX's API, handling missing values and outliers
- Performed feature engineering by extracting relevant features from the data to improve model interpretability and prediction accuracy.
- Presented findings in a clear and concise report, enabling informed decision-making about launch costs and competitive strategies
- Built and evaluated predictive models (Logistic Regression, SVM, Decision Tree, KNN) to predict landing outcomes (binary classification).
- Decision tree model emerged as the best performer for predicting landing success based on various metrics (Jaccard Score, F1 Score, Accuracy).

COURSES AND SPECIALIZATIONS

- Earned Microsoft Certified: Power BI Data Analyst Associate.
- Earned Google Cloud Certified Professional Cloud Architect.