ANJANA KARATHAT RAJEEV

Data Science Graduate

0478941055 • anjanakr1916@gmail.com • www.linkedin.com/in/anjana-karathat-rajeev • https://anjana-karathat-rajeev.netlify.app/
• Melbourne

Summary

Data science professional with expertise in healthcare AI applications, combining strong statistical foundation with hands-on experience developing diagnostic tools. Skilled in machine learning, NLP, and creating user-friendly interfaces for AI systems.

Education

RMIT University	Melbourne
Master of Science in Data Science │ GPA: **3.6** / 4.0	02/2023 - 12/2024
Aalto University - Student exchange program	Uusimaa, Finland
Master of Science in Applied Statistics and Data Analytics │ GPA: **3.2** / 4.0	01/2022 - 07/2022
Amrita Vishwa Vidyapeetham (Deemed University)	Tamil Nadu, India
Master of Science in Applied Statistics and Data Analytics │ GPA: **9.19** / 10.0	06/2020 - 07/2022
Amrita Vishwa Vidyapeetham (Deemed University)	Tamil Nadu, India
Bachelor of Science in Mathematics │ GPA: **8.83** / 10.0	06/2017 - 06/2020

Experience

InflaMed — Melbourne, Australia
Data Science Intern — 07/2024 - 11/2024

Machine Learning, Natural Language Processing, LangChain, Flask, Python, Image Classification, Healthcare AI Applications

- Developed an advanced chatbot for skin condition diagnosis using LangChain, integrating image classification models and research paper processing
- Implemented deep learning for image analysis and NLP for symptom evaluation
- Created user-friendly web interface with Flask for seamless interaction with the AI diagnostic system
- Collaborated on end-to-end development from data preprocessing to system integration

Projects

Real-time Taxi Data Stream Processing — 2024

Apache Kafka, Apache Spark Streaming, HDFS, Scala

- Calculated ride metrics on-the-fly while storing results in HDFS.
- Implemented check pointing and state management techniques to ensure system reliability and fault tolerance.

Predicting User Knowledge Levels with Machine Learning — 2023

Machine Learning, Decision Tree Classifier, K-Nearest Neighbors (KNN), Scikit-Learn, Pandas, Matplotlib, Seaborn

- Developed Decision Tree and KNN models to classify user expertise in Electrical DC Machines using academic performance data, achieving 90% and 85% accuracy respectively
- Analyzed correlations between study habits (e.g., revision frequency) and exam outcomes, proposing integration of behavioral data (mouse dynamics) for enhanced predictions

Grad-CAM: Comprehensive Survey — 2022 - 2023

Class Activation Map, Explainable Machine Learning, Grad-CAM, Evaluation, Intersection of Union

- Compared performance of CAM models with computer vision architectures (ResNet50, VGG-16, ViT)
- Found XGradCAM with ResNet50 yielded highest performance (68.34% confidence score)

Comparing Logistic Regression & Decision tree classifier in Predicting Prevalent Hypertension — 2022

Machine Learning, Logistic regression, Decision Tree Classifier, Sklearn, Matplotlib, Seaborn, NumPy

- Developed logistic regression and decision tree models to predict hypertension
- Decision tree classifier emerged as preferred model for interpretability and nonlinear handling

Skills

Data Analysis & Statistics: Data Manipulation, Exploratory Data Analysis (EDA)Statistical Analysis (Hypothesis Testing, Regression, A/B Testing)Basic Predictive Modeling (e.g., Linear/Logistic Regression)Data Storytelling, KPI Definition, Business Reporting, Advanced Excel/Google Sheets

Data Visualization & Business Intelligence (BI): Power BI, Tableau, Looker, Metabase, Dashboard Design, Interactive Reporting, SQL for Data Querying and Analysis, Metrics Tracking, Trend Analysis

Programming & Automation: Python (Pandas, NumPy, Matplotlib/Seaborn), R (Tidyverse, ggplot2), SQL (Advanced Queries, Window Functions), Shell Scripting (Bash), Basic Automation

Cloud & Big Data Tools: Azure, AWS (S3), GCP, Apache Spark (PySpark), Hadoop (Hive), Cloud Databases (e.g., Azure SQL, AWS RDS)

Tools & Collaboration: Version Control (Git, GitHub), Collaboration Tools (Jira, Confluence, Slack), OpenAI APIs for NLP tasks (sentiment analysis, text summarization)

Frontend Development: HTML, CSS, JavaScript, Node.js, Responsive Design, React

Data Science & Machine Learning: Data Modelling, Predictive Modeling, Machine Learning, AI Integration, NLP, Statistics, Data Visualization, Dashboards, Business Intelligence (BI).