### **DEVI CHANDRAN**

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#### **PROFILE**

A Data Science Master's graduate from the University of Birmingham with a strong foundation in mathematics from the University of Delhi. Committed to leveraging advanced analytical techniques to extract meaningful insights from complex datasets. Adept at data cleaning, analysis, and visualization, with a focus on optimizing model performance. Demonstrated expertise in diverse projects, including research, data manipulation, and machine learning. Committed to continuous learning and equipped with strong leadership and extracurricular experiences.

#### **EDUCATION**

# University of Birmingham, UK MSc Data Science (Taught)

Sep 2022 - Sep 2023

- Grade: Distinction
- Key Modules: Algorithms for Data Science-Machine Learning, Data Visualization, Python Programming, Database Management System-PostgreSQL, MongoDB, Neo4j, Fundamentals of GDPR, Current topics in Data Science and Artificial Intelligence- Image Segmentation, Temporal Data Analysis, Image Denoising.

# Ramjas College, University of Delhi BSc (Hons) Mathematics

Jul 2019 - Jul 2022

- Grade: 9.419 CGPA.
- Key Modules: Probability, Economics, Statistics, Mathematical Finance, Calculus, Linear Algebra, Mathematical Modelling, Differential Equations, C++, and R programming.

#### **EXPERIENCE**

# Petrofac Data Science and Automation Analyst Intern

Feb 2024- May 2024

- Applied advanced automation techniques using UiPath and integrated machine learning models to streamline business processes, ensuring operational efficiency.
- Led AI project developing Python chatbot framework with LLMs like Llama 2 & Azure OpenAI.
  Researched Llama 2 access via Hugging Face and Meta, implemented Langchain python framework
  with Azure & Hugging Face embeddings, and integrated vector stores like Chroma DB, Pinecone, Faiss
  for RAG implementation and developed UI frontend using HTML, CSS, JavaScript and Flask
  application.
- Provided intelligent automation solutions to business such as RPA, AI, ML, NLP and others.
- Collaborated across IT infrastructure and security teams to ensure data privacy standards.

## University of Birmingham Research Associate

Jun 2023- Jul 2023

- Conducted comprehensive attitudinal study on immunization in Pakistan, analysing across diverse religious groups.
- Proficient in R for Data Analysis to extract insights from complex datasets, including robust descriptive
  analyses, A/B testing, rigorous data balance assessments, and revealing key preferences through
  conjoint analysis.

Mastered data cleaning and data pre-processing in R, ensuring data integrity.

#### **PROJECTS**

#### **University of Birmingham**

Mar 2023- May 2023

#### Analysing impact of bullying on the overall development of children in schools in the UK.

- Collaborated on a data science group project investigating UK school bullying on children's holistic development, with a focus on mental health analysis.
- Led comprehensive data collection, validation, and manipulation processes to ensure the integrity and quality of the dataset.
- Incorporated exploratory data analysis and applied a diverse array of machine learning algorithms for classification utilizing the scikit-learn library to create predictive models.

### **University of Birmingham**

Jun 2023- Sep 2023

### Dissertation- Thresholded Boolean co-abundance analysis for continuous valued datasets

- Applied ESABO method with z-score quantification to continuous datasets.
- Developed thresholding techniques to enhance ESABO's applicability to real data, extracting species interactions.
- Assessed model variations to optimize network creation, considering data compositionality and sample size.
- Implemented network complexity measures to gain insights into dataset relationships and identify keystone species.

#### **AWARDS**

### **University of Birmingham**

#### Certificate of Achievement

Best MSc dissertation project award of the 2022/23 graduating cohort in the school of computer science.

#### **EXTRA-CURRICULAR ACHIEVEMENTS**

#### Melange - Fine Arts Society, Ramjas College

Jul 2021 - May 2022

#### **Treasurer**

- Financial Planning and Budgeting Expertise: Administered comprehensive financial planning, precise budgeting, and meticulous reporting to manage a \$773.48 budget for the club.
- Orchestrated a broad range of activities, including group meetings, engaging art workshops, captivating art walks, and enriching sessions as an active union member.
- Spearheaded a team of 100 members, while collaborating with other committee members, to plan and execute the society's annual flagship event, 'Artosphere'.

#### SKILLS AND INTERESTS

- Programming Languages: Python, Java, JavaScript, R, C++, Mathematica, LaTeX, SQL(PostgreSQL), MongoDB, Neo4j, HTML, CSS.
- Packages: PyTorch, Tensorflow, NumPy, Pandas, SciPy, Seaborn, Matplotlib, Scikit-learn.
- Data Modelling: Statistical Analysis, Linear and Logistic Regression, Dimensionality Reduction (PCA, Isomap, LLE), Naïve Bayes, Latent Semantic Analysis, Document Mining, Logarithmic model, Random Forest, XGBoost, SVM, Decision Tree, KNN, Clustering.
- Data Visualization: Excel (Pivot tables, Power Query, XLOOKUP, VLOOKUP), Google Sheets, Google Data Studio, Power BI, Tableau.
- Retrieval Augmented Generation(RAG): Open AI, Llama 2, Embedding models, Vector stores,
   Microsoft Azure AI and Machine Learning.
- Automation: Robotic Process Automation(RPA), Intelligent Document Processing(IDP), UiPath(Studio, Apps, Al center, Document Understanding)
- Cloud Platform: Azure Al Studio, Azure Cognitive Search, Azure Open Al, Azure Data Platform.