

RINDHUJA TREESA JOHNSON

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EDUCATION

University of Maryland Baltimore County (UMBC)

Master of Professional Studies in Data Science

GPA: 4.0/4.0

Baltimore, MD

May 2024

Pondicherry University

Master of Science in Physics

GPA: 3.61/4.0 Valedictorian

Puducherry, India

May 2022

SKILLS

Languages & Frameworks	SQL, Python, C#, .NET, R, C++, HTML, JavaScript, CSS, DAX, LaTeX
Visualization & Analysis	MS Power BI, Tableau, MS Excel
Database Management	MySQL, MS SQL Server, Azure Data Studio, PostgreSQL
Cloud & Big Data	Snowflake, AWS, Azure, Databricks, Apache Spark, Apache Hadoop
IDE & Project Management	Docker, Jupyter NB, Visual Studio Code, RStudio, GitHub, Agile
Python Libraries	Pandas, NumPy, Matplotlib, Seaborn, StatsModels, Sci-Kit Learn, TensorFlow, PyTorch, Keras, PySpark
R Libraries	Tidyverse, TidyR, Ggplot2, Plotly, Sf, Dplyr, SpData
Soft Skills	Communication, Time & People Management, Problem-solving, Adaptable & Team player, Critical thinking, Attention to detail
Expertise	ETL, Data Analysis & Visualization, Database Management, Machine Learning, AI, LLM, Big Data, Deep Learning, Research, Descriptive Statistics, Forecasting, Business Analysis, Financial Analysis, Trend Analysis, Business Intelligence, LLM Prompting, Documentation

EXPERIENCE

Graduate Assistant (Data Science), UMBC

Jan 2024 - May 2024

- Collaborated with the instructor to develop projects that enhanced students' experience with **cloud platforms and big data** processing with **Spark, Hadoop, Databricks, AWS, Mongo DB, and Cassandra DB**
- Streamlined the evaluation process of student work, increasing efficiency by 200% while adhering to grading criteria and providing detailed, **constructive feedback**
- Offered support to students, addressing their queries and helping them grasp concepts during office hours
- Mentioned for the **attention to detail**, accountability, and timely delivery of quality work in the evaluation

RTTP Math Coach, UMBC

Oct 2023 - May 2024

- Enhanced the arithmetic capabilities of elementary/middle school students by 70% through **targeted practice** and innovative teaching methods
- Boosted student productivity and engagement by 50% by planning, designing, and executing Session Frameworks
- Prioritized** sessions to align with student feedback and suggestions from the coordinator and improved student performance

Social Media Analyst, Redwood Algorithms

Sept 2022 - Dec 2022

- Targeted audience** analyzing the **Google Analytics** data on clicks and website visits, resulting in lead generation and conversion
- Elevated customer engagement by 200% by analyzing trends and driving **ad campaigns** in different audience categories with **Meta Ads** and **Google Ads**
- Documented** campaign **data and metadata** with **Microsoft Office Suite** and **communicated** effectively with business stakeholders and team members, updating on the project and its impact on lead conversion

PROJECTS

Automatic Traffic Light Management Application with AI sensors using C# in .NET framework

- Implemented a Smart Traffic Control System using **.NET, C#, and SQL Server**, optimizing traffic flow based on real-time data from GPIO-connected sensors, resulting in a **25%** reduction in commute times, a **40%** shortening of wait times and a **20%** decrease in fuel consumption
- Developed and integrated a robust database architecture in SQL Server with **Azure Data Studio** as the client to store and analyze traffic data, enabling dynamic signal control and enhancing system scalability and reliability
- Leveraged **Visual Studio Code, Docker, and DotNetEnv** for secure configuration management, ensuring efficient deployment and maintenance of the application

Portfolio Optimization and Dynamic Dashboard with MS Excel, SQL, and Python

- Optimized the risk-return of a 5-stock portfolio using the **Data Analysis and Solver add-ins in MS Excel**
- Generated a portfolio transaction dataset using **Python and YahooFinance API** with appropriate constraints
- Established a **MySQL connection** between Python (SQLConnect) and MS Excel(ODBC) to enable auto-updation of data and proper data management
- Designed a dynamic dashboard in MS Excel with **LOOKUPS** and **PIVOT** tables for stock allocation and risks

Nutrition Dashboard for US Food Products with Tableau, SQL, and Python

- Published a user-friendly dashboard that allows custom diet planning and nutrient calculation on Tableau
- Cleaned the messy data, connecting MySQL and Python to prevent data losses and forming a flawless data pipeline

Time-series Analysis of Exchange Rates of Foreign Currencies with US Dollar

- Achieved a high-accuracy (97%) model by implementing a **time-series analysis and forecasting** using the ARIMA, SARIMA, and SARIMAX on the FRED Foreign Exchange data
- Researched **micro-economic variables** to be considered for the SARIMAX model, thus learning the domain deeply and understanding the relationships
- Created an interactive Dashboard with **MS Power BI** of the Exchange rates of 5 different countries and integrated Python with the FRED API auto-updating data with the weekly release to visualize the forecasts of exchange rates for the next 10 months

Customer Lifetime Value Prediction for Auto-Insurance Companies

- Attained a 91% accurate Customer Lifetime Value (CLV) prediction (Random Forest) model and **segmentation** to drive targeted marketing strategies
- Incorporated **AWS S3** bucket for data storage by setting up **API** access with Python using Google Colab
- Developed a **MS Power BI** dashboard with CLV for different Insurance policies and premiums and **hosted a website** that predicts CLV for companies
- Designed a QnA Interface using *Langchain* **Google's Gemini LLM API** that converted human questions into **SQL queries** and extracted data from the database, enabling non-technical interaction with the data

Steam Review Analysis using Apache Spark and Hadoop in Python

- Led a group of three and sighted a 40% increase in the number of reviews on the Steam App in Nov 2021 from an 8GB dataset, accessed and analyzed using HDFS and PySpark, respectively
- Modeled an algorithm to recommend 5 games for new players using the Alternating Least Squares from Spark MLlib based on gaming history

Analyzing and Visualizing the Motor Accidents in Maryland Counties in R

Dec 2023

- Conducted in-depth EDA on motor crashes in Maryland, focusing on crash fatality levels, analyzed crash frequency, and found Prince George's and Baltimore counties reported above 40% of the crashes
- Demonstrated advanced proficiency in Version Control using Git and GitHub, saving 25% time in file management
- Designed an interactive map using Plotly highlighting crash-prone areas along the 16 Interstates in Maryland, integrating data from OpenStreetMap

Mall Customer Segmentation using K-Means Clustering

Aug 2023

- Investigated the customers into six segments based on a 0.45 Silhouette score using K-Means depending on Age, Income, and Spending to analyze the public behavior in shopping at malls

Image Classification for Breast Cancer Detection

- Implemented CNN using high-end Python libraries such as TensorFlow and Keras to classify sample images into probability groups to help detect Breast Cancer
- The model gave a left-skewed distribution of probabilities, i.e., it predicted most samples to be cancerous

Portfolio Website Using HTML and CSS

- Escalated public visibility by 300% by developing a personal website, launched with Jekyll on GitHub that showcases career journey
- Drafted the website using HTML for content and CSS for styling and formatting

LEADERSHIP & EXTRA-CURRICULAR

Class Representative — Pondicherry University

- Represented 25 students to communicate students' requirements and faculty expectations in department meetings
- Scheduled Exam Timetable resolving schedule conflicts among different courses and departments

Writing - Experienced in technical, professional, social, and personal writing, supported by a never-ending interest in learning and upskilling

Active Badminton player and National Athlete — UMBC, Pondicherry University, High School

- Represented UMBC in numerous inter-university Badminton tournaments and UMBC Badminton Club member
- All India CBSE Schools Athletic Meet Participant - 2016, 2017

CERTIFICATIONS

- [IBM Data Science Professional Certificate](#)
- [Data Analysis with Microsoft Excel](#)

PUBLICATIONS

- Data Writer [@Towards Data Science](#)

ACHIEVEMENTS

- [Phi Kappa Phi Honor Society Member](#)
- GATE (Feb 2022), JAM (Feb 2017)