Monisha Mohan

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Education

Northeastern University   **Expected May 2025**
*Master Of Science in **Computer Software Engineering***   *Boston, MA*

> **Coursework**: Application Engineering Development, Web design/User Experience, Database Management & Database Design, Programming Structures and Algorithms, Data Science Methods & Engineering, Object Oriented Design, Applications of Generative AI, Advance Big-Data applications

Ramaiah Institute Of Technology   **June 2021**
Bachelor Of Engineering in Electronics and Telecommunications   *Bangalore, Karnataka*

> **Relevant Coursework**: IoT, Operating Systems, Computer Networks, Embedded Systems, Control Systems, Web Design
>
> **Publication**: RFID Based Library Management System, IEEE International Conference   Link

Technical Skills

Languages: Python, Java, R, C, C++, SQL, JavaScript, HTML, CSS
Frameworks: ReactJS, NodeJS, ExpresJSs, TypeScript, Redux, Flask, Apache Spark, Kafka, Hadoop, Spring Boot
Tools/Technologies: Git, REST API, Docker, Kubernetes, Snowflake, MLFlow, MATLAB, Postman, Linux, PyCharm, IntelliJ, Eclipse, SQL Server, MySQL, NoSQL, PostgreSQL, Oracle, Hive, Jenkins, Power BI, Tableau, Azure DevOps, UI/UX, Agile, Alteryx, Excel
Cloud Technologies: Microsoft Azure, AWS, GCP
Libraries: Numpy, Pandas, Matplotlib, Seaborn, PyTorch, TensorFlow, Scikit-Learn, OpenCV, Keras, Scrapy

Experience

Ernst and Young   **October 2021 - August 2023**
Associate Software Engineer   *Bengaluru, India*

- Optimized data structures through data **modeling initiatives** to enhance analytics and decision-making.
- Leveraged Microsoft Azure Technologies, including **Data Factory, Databricks, Synapse Analytics, SSMS, Hive Meta Store, and PowerBI**, to facilitate real-time auditing, develop dashboards, and deliver actionable reports to business stakeholders
- Employed **PySpark** scripting to fine-tune and enhance data from vendor sources, improving data quality and operational efficiency, and boosting **productivity by 20%**
- Incorporated CI/CD pipelines using Microsoft Azure Data Factory to automate data flow processes, **achieving an 80%** increase in operational efficiency

Projects

Trouvaille - Travel Website | *MERN Stack, HTML, CSS, JavaScript*   **Link | December 2023**
  * Developed a web application for a travel website with features such as review management, accommodation booking, Blogs, and booking functionalities
  * Designed and maintained **MongoDB database** for efficient storage and retrieval of travel-related information
  * Created responsive **front-end** interfaces using **HTML, CSS, React and JavaScript** to enhance the user experience
  * Implemented **REST APIs** using **Node.js** and **Express** to handle user reviews, accommodation data, and bookings on the **back-end**

Trading Platform | *Spring Boot, React, Tailwind CSS, MySQL, APIs*   **Link | December 2024**
  * Developed a trading platform with features like **user authentication, cryptocurrency management, wallet operations,** and **trading functionality**
  * Integrated **Spring Boot backend** with **MySQL database** and secured the application using **Spring Security** with 2FA and OTP verification
  * Implemented a **React-based front-end** with **Tailwind CSS** and integrated APIs like **CoinGecko, Gemini, Razorpay,** and **Stripe** for real-time cryptocurrency data and payment processing

Algerian Forest Fire Prediction | *NumPy, Pandas, Seaborn, Matplotlib, Scikit-learn*   **Link | December 2024**
  * Performed **EDA** using **Seaborn** and **Matplotlib** to uncover patterns, correlations, and influential features.
  * Applied **Feature Engineering**, including standardization and removal of correlated features, to enhance model accuracy and generalization.
  * Trained and evaluated **Linear**, **Ridge**, **Lasso**, and **ElasticNet** models using **Scikit-learn**, achieving **R-squared scores** of 87% to 98.4%.