

Monisha Mohan

Boston, MA | (857)204-3367 | m.mo@northeastern.edu | [Linkedin](#) | [Github](#) | [Portfolio](#)

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 and Database Design, Programming Structures and Algorithms

Ramaiah Institute Of Technology

June 2021

Bachelor Of Engineering in Electronics and Telecommunications

Bangalore, Karnataka

Coursework: Internet Of Things, Operating Systems, Computer Networks, Digital Signal Processing, Embedded Systems, Control Systems, Micro-controllers, Web Design, Cryptography

Publication: RFID Based Library Management System, IEEE International Conference

[Link](#)

Technical Skills

Languages: Java, Python, R, C/C++, C#, SQL, JavaScript, Typescript, HTML/CSS, UML, XML, PowerShell

Frameworks: React, Node, Django, Redux, Flask, Spark, Django, MySQL, Microservices, Express, FastAPI

Tools: Git, Docker, Kubernetes, MLFlow, Postman, Linux, PyCharm, IntelliJ, SQL Server Management Studio, Oracle, PyQT, Power BI, Tableau, ADO, Agile, Alteryx, Excel

Cloud: Azure, AWS, EC2, Ansible, Google Cloud Platform, DynamoDB

Libraries: Numpy, Pandas, Matplotlib, Seaborn, OpenCV, Keras, PyTorch, MXNet, Computer Vision, TensorFlow, SVM, CNN, NLP, PySpark, Hive, MapReduce, ETL, PostgreSQL

Experience

Ernst and Young

October 2021 - August 2023

Associate Software Engineer

Bengaluru, India

- Spearheaded **data modeling** initiatives to craft optimized data structures for enhanced analytics
- Leveraged Microsoft Azure Technologies, including **Data Factory, Databricks, Synapse Analytics, SSMS, Hive Meta store and PowerBI**, to facilitate real-time auditing experiences for seamless reporting to business stakeholders
- Employed **Pyspark scripting** to fine-tune and enhance data from Vendor sources, leading to improved data quality and operational efficiency; **boosted productivity by 20%**
- Incorporated **CI/CD** pipelines using **Microsoft Azure data factory** to **automate** the data flow process which would enable **efficiency by 80%**

Projects

Trouville - 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 **RESTful APIs** using **Node.js** and **Express** to handle user reviews, accommodation data, and bookings on the **back-end**

Tennis Analysis System | *Computer Vision, PyTorch, YOLO, CNN*

June 2024

- Developed a Tennis Analysis System using YOLOv8 and Custom CNN:** Utilized ultralytics YOLOv8 for player and ball detection, and PyTorch for court keypoint extraction with custom CNNs
- Fine-Tuned and Trained YOLO Models on Custom Datasets:** Enhanced object detection accuracy by training YOLO models on a custom dataset, improving detection precision for tennis analysis
- Integrated ML/DL Outputs for Comprehensive Feature Development:** Analyzed detection data and utilized OpenCV for video manipulation, creating a cohesive project with practical and actionable insights

Face Recognition System | *OpenCV, Keras*

[Link](#) | June 2024

- Developed a robust face recognition system using Keras for deep learning and OpenCV for image processing.
- Trained Convolutional Neural Networks (CNNs) on a custom dataset to achieve high accuracy in face recognition tasks.
- Utilized OpenCV for real-time face detection and recognition, ensuring efficient and accurate performance in dynamic environments.