

# Monisha Mohan

Boston, MA | (857)2043-367 | [m.mo@northeastern.edu](mailto:m.mo@northeastern.edu) | [Linkedin](#) | [Github](#) | [Portfolio](#)

## Education

### Northeastern University

*Master Of Science in Computer Software Engineering*

**Expected May 2025**

*Boston, MA*

**Coursework:** Application Engineering Development, Web design/User Experience, Database Management and Database Design, Programming Structures and Algorithms

### Ramaiah Institute Of Technology

*Bachelor Of Engineering in Electronics and Telecommunications*

**June 2021**

*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++, SQL, JavaScript, HTML, CSS, MATLAB

**Frameworks:** Flask, React.js, Node.js, Angular.js, Express.js, Redux, TypeScript, Spark, .NET

**Developer Tools:** Git, Docker, Microsoft Azure, AWS, PowerBI, Tableau, Google Cloud Platform, Flutter, Postman, Oracle, Visual Studio, PyCharm, Jupyter, PyQt, IntelliJ, SQL Server Management studio, Alteryx

**Libraries/Technologies:** REST APIs, NumPy, Pandas, PyTorch, TensorFlow, Matplotlib, Keras, MongoDB, NLP, Cloud Computing, Computer vision, Neural Networks, Deep learning, ETL

## Experience

### Ernst and Young

*Associate Software Engineer*

**October 2021 - August 2023**

*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 | *Node.js, Express, MongoDB, 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, 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.