

Hrishabh Mahaju

mahajuh@gmail.com | (203)-410-5161 | [LinkedIn](#) | [GitHub](#) | [Medium](#) | [Website](#)

EDUCATION

University of New Haven - Tagliatela College of Engineering

West Haven, CT

Master of Science in Data Science

Aug 2024- May 2026

Coursework: Python Programming, Algorithms, Math for Data Scientists, Intro to AI, Machine Learning, Distributed and Scalable Data Engineering with AWS, Natural Language Processing, Deep Learning, Computer Vision, Power BI.

Pokhara University - Cosmos College of Management and Technology

Lalitpur, Nepal

Bachelor's in Computer Engineering

Sept 2016 - July 2022

Coursework: Data Structures and Algorithms, Object Oriented Programming with C++, Computer Networks, Artificial Intelligence (AI), Discrete Mathematics, Data Communication and Networking, Java Programming, Web Programming, Database Management System, Software Project Management, Data Mining and Warehousing

SKILLS

- **Languages:** Python, JAVA, JavaScript, Typescript, SQL
- **Machine Learning and AI Frameworks:** Pandas, Numpy, Scikit-Learn, NLTK, PyTorch, Tensorflow, Keras, OpenCV
- **Web-Frameworks:** Spring Boot, Django, Flask, Angular, ReactJS, NextJS, NodeJS
- **Database & Cloud:** Firebase, MongoDB, MySQL, AWS
- **Design & Tools:** Power BI, ggplot2, Seaborn, Excel, Photoshop, Canva, Lightroom
- **Version Control:** Git/GitHub, GitLab

WORK EXPERIENCE

YCO Pvt. Ltd., [Nepal Stock Exchange \(NEPSE\)](#) Project

Kathmandu, Nepal

Associate Software Development Engineer | Software Development Engineer in Test

Oct 2021 - Jun 2024

Technology Used: **Python, Selenium, JMeter, Bash Scripting, Burp Suite, Postman, Excel, SharePoint, Scrum, Java, Spring Boot, Angular, MSSQL, Redis, Docker, Birt Reporting, Jasper**

- Optimized microservices-based fund and trade management systems for high availability, scalability, and security.
- Drove feature enhancements and prioritized backlogs as a product owner.
- Contributed to software architecture, API integrations, and system optimizations for high-frequency trading.
- Improved software performance by 50% through comprehensive testing and issue resolution.
- Identified quality issues and recommended improvements during design reviews and risk assessments.
- Conducted root cause analysis (RCA) to provide actionable solutions and prevent future issues.
- Improved NEPSE Website reliability and user engagement by 30% by applying High Availability (HA) architecture with a Spring Boot-based multi-server solution.
- Designed and optimized SQL stored procedures for efficient data retrieval and API development.
- Containerized and deployed services using Docker to enhance portability and scalability.

Motorable Local Roads Bridge Program (MLRBP)

Lalitpur, Nepal

Freelance Web Developer

Apr 2024 - May 2024

Technology Used: **ReactJS, React-Leaflet, NextJS, GeoJSON, MariaDB, Docker, MsExcel**

Website: <https://webmap.lrbpnepal.org>

- Led the development of an interactive website for the Motorable Local Roads Bridge Program (MLRBP), enabling the visualization of bridge projects across Nepal.
- Implemented dynamic mapping features using
- React-Leaflet and GeoJSON to allow interactive viewing of bridge locations and project progress.
- Directed data management efforts, including
- data cleaning, schema creation, and organizing thousands of bridge-related records for optimal display.
- Developed and optimized backend services with
- MariaDB, designing efficient database schemas to handle large datasets and ensure fast query responses.
- Containerized the application using
- Docker to streamline deployment and ensure consistency across different environments.
- Utilized MS Excel for preliminary data analysis, cleaning, and transformation.

ACADEMIC PROJECTS

[Real-Time Website Traffic Analytics Using Distributed and Scalable AWS Cloud Services](#) | University of New Haven

- Implemented a real-time data engineering pipeline designed to simulate and analyze website traffic logs using cloud-native technologies. Inspired by real-world software engineering practices, the pipeline demonstrates how log analysis can provide operational intelligence to support the Software Development Life Cycle (SDLC).

[DocuMate: AI-Powered PDF Assistant with RAG](#) | University of New Haven

- Developed a smart assistant using Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG) to answer questions about uploaded PDF files. Users can interact via a conversational interface to get contextual, accurate responses from their documents.

[N-Queens ML Challenge](#) | University of New Haven

- Developed an interactive N-Queens puzzle game using machine learning and reinforcement learning, built with a focus on AI-powered gameplay and smart difficulty scaling.

[Alzheimer's Disease and Healthy Aging Data](#) | University of New Haven

- Developed a data analysis project leveraging Python for trend analysis, confidence interval computation, and K-Means clustering on Alzheimer's Disease data from the BRFSS survey.

[E-Health Care Chatbot with Mental Health Consultant using Decision Tree Algorithm](#) | Cosmos College of Management and Technology

- Designed and developed an AI application that interacts with the user to predict the disease and recommend possible treatment after a series of yes/no questions with the help of Decision Tree Algorithm with Python.