# **Mohammad Bayat**

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# **Objective**

A dedicated graduate student pursuing a master's in computer science at New Jersey Institute of Technology, skilled in data analytics, machine learning, and full stack development, actively seeking software development internship opportunities.

#### **Education**

- Computer Science M.S | New Jersey of Technology | Jan 2024-present
- Computer Science M.S | Rochester Institute of Technology | August 2023-Dec 2023
- Computer Science B.A | Queens College | August 2020- Dec 2022

#### Skill

- **Programming Languages:** Python, Java, C++, JavaScript
- Frontend Frameworks: ReactJS, AngularJS, Vue.js CSS, HTML, Tailwind
- Backend Frameworks: TypeScript, Node.js, Django
- Database Skills and Technologies: DuckDB, PostgreSQL, SQLite, Firebase, MySQL, SQL Server, SQL
- Data Analytics Technologies: Pandas, Numpy, Scikit-learn, Seaborn, Matplotlib, Microsoft Excel
- Version Control: Git, GitHub
- Cloud Technologies: AWS, Microsoft Azure Relevant Certification: AWS Cloud Practitioner Issued: 2021

### **Experience**

Full Stack Developer Intern | DIYVERSITY | Remote | 09/2022 - 10/2022 | Technologies: ReactJS, CSS, HTML, Firebase

- Collaborated with the frontend team on the development of a Google Chrome Extension and optimized menu bar navigation using ReactJS, CSS, and HTML.
- Implemented backend connectivity via Firebase for user authentication and managed onboarding processes for new interns.
- Authored and standardized documentation, ensuring streamlined operational processes for the team.

## **Projects**

YouTube Insight Analyzer | Technologies: NumPy, Pandas , TypeScript, React, Next. js, SQLite, PowerBI, CSS, HTML

- Implemented an intelligent search categorization feature that analyzes user queries using core Python.
- spearheaded the development of the web application, utilizing HTML, CSS, and TypeScript to craft a user-friendly interface.
- Employed Next.js and React.js to create a highly responsive and engaging front-end, delivering a seamless user experience.
- Dynamically created category-specific tables in the database, sent HTTP requests to retrieve data about videos in the identified categories and efficiently populated the SQLite database.
- Utilized clustering algorithms, such as K-Nearest Neighbors (KNN), to identify patterns and classify content based on metrics such as likes, views, comments, and other content counts.
- Conducted comprehensive data analysis and leveraged Power BI to create interactive dashboards, providing users with valuable insights into popular YouTube channels.
- Developed prediction models to identify and highlight future YouTube stars, enabling YouTube to target and support these emerging content creators effectively.

#### NYC Transportation Data Web Application | Technologies: Python, DuckDB, SQL, JSON

- Led a collaborative effort with a team of 5 members to conduct thorough background research, identifying key gaps and opportunities in existing research for the project's success.
- Designed and implemented a robust DuckDB Schema, optimizing data storage and management capabilities to efficiently handle a sizable 64 GB dataset sourced from the NYC Taxi Commission.
- Improved the data scraping script to empower users with the ability to select specific data segments for download, significantly enhancing data retrieval efficiency and user experience.
- Leveraged the DuckDB API to craft advanced SQL queries, facilitating in-query data analysis directly within Python files, streamlining data exploration and insights generation.
- Implemented the Pickle module for the storage and sharing of data analysis results, enabling seamless collaboration with fellow team members working on the front-end development of the web application.