# **GUHA MAHESH**

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#### **EDUCATION**

Northeastern University, Boston, MA, GPA: 3.8/4.0

May 2028

Bachelor of Science in Data Science and Business Analytics with a focus in FinTech

Activities: John Martinson Honors Program, Dialogue of Civilizations in Belgium

**Relevant Coursework:** Programming with Data 1 & 2, Foundations of Data Science, Discrete Structures, Business Statistics, Financial Management, Financial Accounting, Introduction to Databases, Fintech and Financial Innovation, Marketing and Society

### **TECHNICAL SKILLS**

Languages: Python, TypeScript, JavaScript, SQL

Tools/Libraries: pandas, NumPy, Matplotlib, Scikit-learn, Jupyter, Keras, Docker, React, Flask, Express.js,

#### **WORK EXPERIENCE**

Facilitator, Rev (NU Student Club), Boston, MA

August 2025 – Present

- Produced engaging social media videos that increased visibility and attendance at club information sessions.
- Reviewed 30+ membership applications and identified top candidates for interviews.
- Led candidate evaluations and interviews, selecting members best positioned to contribute to Rev's mission and impact.

Data Science Tutor, Knack, Boston, MA

January 2025 - Present

- Achieved a 5-star rating by guiding 10 students to improve their academic performance and strengthen Python programming.
- Delivered personalized instruction in Pandas, NumPy, statistics, and Exploratory Data Analysis (EDA), enabling students to apply data science concepts in coursework and projects.

Data Science Intern, Green Joules, Remote

June 2023 – September 2023

- Assessed biofuel feasibility of 11 crops by analyzing production volumes, commodity prices, and food security considerations.
- Researched crop by-products for potential biofuel applications and presented data-driven recommendations.
- Developed visualizations that informed strategic decision-making on the potential establishment of a biorefinery in Texas.

## **PROJECT EXPERIENCE**

Deep Learning Engineer, BioClock, Tech. Stack: Python, PyTorch, Google Earth Engine, Pandas, Torchvision

September 2025

- Engineered a convolutional neural network with the aim of predicting biodiversity based off satellite images
- Utilized Google Earth Engine to collect 7,000+ satellite images and integrated biodiversity records from the GBIF API to build a labeled training dataset
- Augmented the satellite images with Torchvision to prevent overfitting, improving model generalization and achieving a final accuracy of 80%

Developer, FlightScope, Tech. Stack: Python, Flask, React, Scikit-learn, pandas

August 2025 - September 2025

- Built a full-stack web application that recommends optimal birdwatching conditions, enhancing user experience for birding enthusiasts.
- Designed and deployed 30 Poisson distribution models to predict probabilities of spotting specific bird species based on weather and time variables.
- Developed and integrated a database of species weights, enabling users to input a bird species and instantly retrieve tailored spotting recommendations.

Data Analyst, Policy Playground, Tech. Stack: Python, Flask, MySQL, pandas, Scikit-learn

May 2025 - June 2025

- Developed multiple linear regression models to forecast S&P 500 performance and major currency exchange rates using normalized fiscal/monetary policy indicators and lagged historical data.
- Designed a policy recommender system that improved content discoverability and user engagement; containerized the application with Docker to streamline deployment and eliminate environmental inconsistencies.

Full-Stack Developer, ClubStop, Tech. Stack: React, TypeScript, MySQL, Express.js, Node.js

February 2025 - August 2025

- Developed a full-stack platform enabling university students to discover, rate, and promote clubs and organizations.
- Designed and implemented a RESTful API with 20+ endpoints to support robust club management features and dynamic user Interactions. Integrated secure JWT authentication with token refresh and role-based access controls, ensuring data integrity and user privacy protection.