

# Husna Manalai

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github.com/husnamanalai

## Education

**Bard College**, BA in Computer Science

Sept 2022 – May 2026

- **GPA:** 3.7/4.0
- **Relevant Coursework:** Object-Oriented Programming, Data Structures, Algorithms, Discrete Math, Artificial Intelligence, Databases, Software Development, Machine Learning, Linear Algebra, Calculus II, Machine Media.

## Technical Skills and Languages

- **Technical Skills:** Java, Python, SQL, HTML, CSS, JavaScript, PHP, Testing, AWS Services, Google Apps.
- **Languages:** English, Persian, Turkish, Spanish.

## Experience

**Data and Technology Intern**, Third Act – Brooklyn, NY

Sept 2024 – Dec 2024

- Developed a data cleaning algorithm using Python and SQL to de-duplicate large datasets within the EveryAction CRM, reducing duplicate records by 88%, increasing data accuracy and improving outreach efficiency.
- Maintained the Working Groups lists, improving team collaboration and communication efficiency by 65%.
- Imported ActBlue contributions weekly, and coded Google App script for formatting data which streamlined the donation tracking process by 97%.

**Research Assistant**, Bard Summer Research Institute – Red Hook, NY

May 2024 – Sept 2024

- Developed Python code to calculate the quad probabilities in a k-card layout, improving the computational efficiency by 40%. This enhancement reduced processing time for large datasets and increased accuracy.
- Collaborated in creating a multiplayer game in Unity, enabling online play of Quads for 2 players.
- Designed a math game featuring mathematical problems, integrating a projective set with rules from the game of SET.

**ASC-Lab Research Assistant**, Bard College – Red Hook, NY

May 2023 – Sept 2023

- Conducted data analysis for a project on Unification Algorithm For The First Order Theory of Quandles.
- Developed Prolog and Python scripts to generate quandle expressions, aiding 96% in the testing of candidate algorithms.

## Projects

**Predictive Analytics for Bike Rental Demand | Machine Learning**

github.com

- Engineered and compared two machine learning models: a Fully Connected Neural Network (FCNet) for regression and a Recurrent Neural Network (RNN) for time-series prediction.
- Used evaluation metrics (MSE,  $R^2$ ) to assess the effectiveness of the model and interpret temporal and seasonal trends.
- Utilized tools such as Python, TensorFlow, and NumPy for data preprocessing, model development, and training.

**Smart Recipe Recommendation Engine | Data Science**

github.com

- Designed and implemented an intelligent recipe recommendation platform that uses cosine similarity to personalize culinary suggestions.
- Built a robust algorithm using Python, pandas, and scikit-learn to analyze and compare ingredient profiles, dietary restrictions, and cuisine types.
- Integrated scalable Python modules, which showcase the use of vector similarity techniques to generate accurate and efficient recommendations.