

## Anthony J. Barrera

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GitHub: [AnthonyBarrera116](https://github.com/AnthonyBarrera116) - <https://github.com/AnthonyBarrera116>

Website: <https://anthonybarrera116.github.io/Ajbarr.github.io/>

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## EDUCATION

### Loyola University Maryland

Bachelor of Science in Computer Science  
Minor in Statistics

Baltimore, MD  
September 2019 - May 2023  
September 2019 - May 2023

### New Jersey Institute of Technology

Master of Science in Computer Science

Newark, NJ  
September 2023 - Present

## COMPUTER SKILLS

Languages (Intermediate-Advanced knowledge): Python, Java, JavaScript, C, C++

Related Tech: HTML, React Native, React.js

Software: Skilled in Adobe photoshop, Adobe Premiere Pro, MobaXterm, Clion, IntelliJ IDEA, JetBrains PyCharm, jGRASP, Visual Studio Code, Android Studio, Oracle, XAMPP, SQL Developer, Arduino IDE

Operating Systems: Windows 10, Mac OS

## COMPLETED COURSEWORK

Software Engineering/ Microprocessor-Based Systems/ Machine Learning/ Quantum Computing/ Cryptocurrencies and Blockchain/Computer Science Project / Discovering Information in data/ Operating Systems Design/ Data Management Systems Design/ Internet and Higher layer Protocols/ Artificial Intelligence/ Reinforcement Learning / Machine Learning/ Data Mining/ Deep Learning/ Natural Language Processing

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## PROFESSIONAL EXPERIENCE

### USA Hockey

Hockey Referee

Various Rinks in NJ  
July 2016 – September 2022

- 6 years' experience obtaining Level 3 certification (ages 5 to 18)
- Communicate professionally with players, coaches, and parents
- Ensuring all USA Hockey rules are implemented

### Loyola University Maryland

Information Technology Support Specialist

Baltimore, MD  
September 2019 – May 2023

- Analyze, troubleshoot, and evaluate technology issues for 5,000 students and 3,500 staff
- Provide support and assistance to keep campus technology optimized and running efficiently
- Streamline repair processes and update procedures for hardware and software
- Configured hardware, devices, and software to set up workstations for students and faculty.

### New Jersey Institute of Technology

User Services Support Specialist

Newark, NJ  
October 2023 – December 2023

- Analyze, troubleshoot, and evaluate technology issues for students and faculty on Campus
- Provide support and assistance to keep campus technology optimized and running efficiently
- Configured hardware, devices, and software to set up workstations for students and faculty.

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## PROJECTS

### Software Engineering Project - <https://github.com/AnthonyBarrera116/SEP-GROUP>

Loyola University Maryland  
September 2022 – December 2022

[Mobile App](#) – Recreational Football

- Mobile App for recreational football
- Make Teams, Coaches, Players, Games
- Tech stack: MongoDB, React Native, JavaScript

### Senior Project - <https://github.com/AnthonyBarrera116/Senior-Project>

Loyola University Maryland  
January 2023 – May 2023

[F1320 Calculator Website](#)

- Calculator for Finance (Time Value of Money, Bonds, Stocks, Capital Budgeting)
- User, History, Calculations
- Tech stack: MongoDB, HTML, JavaScript

### Crypto Token Project - <https://github.com/AnthonyBarrera116/Coin>

Loyola University Maryland  
January 2023 – May 2023

Making [ERC-20 Token](#) and [Faucet](#) - <https://anthonybarrera116.github.io/Coin/>

- Website – Faucet to drip a ERC-20 token
- Deploying contract on Sepolia Testnet
- Tech stack: Node.js, React.js, Solidity, Hardhat, JavaScript

### Zoo Database Project - <https://github.com/AnthonyBarrera116/DATA-Manage>

New Jersey Institute of Technology  
September 2023 – December 2023

Making of a [zoo](#) database of SQL, Front-End, Back-End and HTML Pages

- Website for signing into database
- Several functions like adding new employee, animal and more
- Tech stack: HTML, Python, XAMPP

### AI-Stock Project - <https://github.com/AnthonyBarrera116/AI-Stock>

New Jersey Institute of Technology  
January 2024 – May 2024

Making of Model to predict future stock

- Two Scaler programs Standard and Min Max
- Four different Ideas of predicting future stock
  - Open Close
  - Open Close Sklearn
  - Open Up Down Close
  - Open High Low Close

### CNN Animal Classification - <https://github.com/AnthonyBarrera116/Image-animal-classification>

New Jersey Institute of Technology  
May 2024 – August 2024

[CNN Model](#) making and testing between Own s a MobileNet

- CNN Model made from tensorflow GPU
- CNN model using MobileNet
- Animal Classification with Probability

### Apriori Algorithm, Brute Force, Association Rules - <https://github.com/AnthonyBarrera116/Apriori-Alg>

New Jersey Institute of Technology  
May 2024 – August 2024

Making of [Association Rules](#) using support and confidence of Apriori transactions

- Confidence Calculating
- Support Calculating
- Association Rules of Transactions

### K means and Hierarchical Clustering - <https://github.com/AnthonyBarrera116/kmeans-Hierac-clustering/tree/main>

New Jersey Institute of Technology  
May 2024 – August 2024

[K means clustering and Hierarchical](#) from scratch and calculates silhouette

- K means clustering from scratch
- Hierarchical clustering from scratch
- Calculates silhouette and shows which is better

### Image classification using CNN model from Scratch - <https://github.com/AnthonyBarrera116/Image-animal-classification>

New Jersey Institute of Technology  
September 2024 – December 2024

Making of CNN Model from scratch to classify animal images

- Making of CNN from scratch using Pytorch
- Uses animal images of 90 different animals

### NLP Study - <https://github.com/AnthonyBarrera116/NLP-Study>

New Jersey Institute of Technology  
September 2024 – December 2024

Study of BERT, Logistic Regression, SVC and etc using Sklearn and building of BERT, Logistic and SVC from **scratch**

- Learning to build BERT, Logistic Regression, and SVC from scratch for Text Classification
- Using Sklearn of BERT, Logistics Regression, SVC and other models
- Study to make a better BERT from scratch versus sklearn library