ARYAN NESTI

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Summary:

Currently a Junior at New Jersey Institute of Technology as a **Computer Science** major while minoring in **Mobile and Web.** I am primarily interested in **Data Science**, **Machine Learning** and **Artificial Intelligence** which is why I have dabbled in some **web mining** and **prediction analytics** projects using **python**, **NumPy, scikit-learn** and **panda** libraries. I also have experience in front-end and back-end programming. Currently working with a team on using **REACT** and **Node.js/Express,** which will be hosted on **AWS.**

Experience:

NeuroTechR3 – Remote
Machine Learning and Unity Developer *January – April 19,2023*

Worked with Google's **MediaPipe** to track hand movements and created a second model upon media pipe to recognize therapeutic hand gestures. These hand gestures would then control the aspects of the **Unity** built game.

Educations Qualification:

New Jersey Institute of Technology – Newark, NJ *September 2020 – Current*
Major in Computer Science
Minor in Mobile and Web

Projects:

- **Semantic segmentation of Satellite images**
  - Worked with **Neural Networks (NNI) Web UI** and allowing us to view the progress of the **Unet** model that would read Satellite Imagery and determine landmarks ranging from wildlife, buildings, water, roads, and more. We did **Hyperparameter Optimization** to locate the best set of Hyperparameters and we used **Knowledge Distillation** and **LevelPrunning** to further optimize the code.
- **Prediction Analytics**
  - I worked on a project in which we have a dataset in a CSV file that has three columns ID, Article, Subject, and another CSV the same but without the Subjects and were different articles. I used **Decision Tree Classifier, Random Forrest Classifier, SVM Classifier** within the **scikit-learn** library to do a K-fold prediction of the subjects of the second file while having the text vectorized using a **Word2Vectorizer.**
- **Electromyography and Gradient Boosting**
  - We coded and used a **cosinusoidal dataset** and we implement **gradient boosting**. We keep the **learning rate** default and **max depth** of 1. Afterward we access and open an **EMG dataset**, and collect the data required to implement a model. Implementing the **Gradient Descent** using Sklearn's **DecisionTreeClassifier** and implemented with the **cosinusoidal dataset.**
- **Prediction Analytics**
  - This project was based around a **Kaggle** competition in which was with twitter tweets that were given in 1 CSV full of 5 criteria and another CSV full of 4 criteria. We sorted through the tweets with **WordNetLemmatizer**, removing emojis using **Regex**, and creating a model in **TensorFlow** using **Keras** integrated with a **Bert** model.
- **MyWebClass.org**
  - A blog website where users can read blogs on the latest news with GDPR compliance and internationalization. Using A/B testing with Google Analytics to display the perfect Hero Image. Uses Playwright for testing, Artillery test for load testing server and ELK stack to monitor server health and logging. **Next.js, Kibana, Sanity, GitHub Pages, Google Analytics, Auth0, Mailchimp**