Aryan Nesti

201-993-4189 | aryannesti60@gmail.com | linkedin.com/in/aryannesti | aryannesti.com

Experience

Data Engineer Intern Jan 2023 – Apr 2023
NeuroTechR3 Inc. *Newark, NJ*

- Constructed a library on top of Google MediaPipe's library on hand tracking.
- Assisted in implementing a model to recognize medical gestures.
- Created a Unity exergame to showcase the model
- Reconstructed the model to function on mobile devices.
- Resulted in hand gestures determine the outcome of the exergame
- Coordinated effectively in an Agile team of 5 members

Projects

AI Based Portfolio | *Next.js, Typescript, GitHub, Docker, Oracle, PineconeDB, OpenAI, Langchain, Vercel AI SDK*

- Integrated Langchain to combine our Pinecone vectorstore with OpenAI's GPT models.
- Utilized Langchain's PDF Loader so it can properly parse PDF files.
- Used Vercel's new AI SDK which simplifies the task of creating a frontend
- Setup Routes to read from the vector store and use OpenAI models to retrieve a response
- Utilized PDF uploader and developed an endpoint that trains our chatbot.
- Established a docker container of the webpage and hosted it on a Oracle server
- Developed and Implemented reusable components to design a more complex UI

Semantic Segmentation of Satellite Images | *Python, NNI WebUI, Unet, Git, GAN, Deep Learning*

- Integrated Neural Network Intelligence WebUI with a Unet model for classifying Satellite Imagery.
- Conducted Hyper-parameter Optimization experimentation for optimization of model parameters.
- Implemented Knowledge Distillation for accelerated deep learning models.
- Applied LevelPruning for improved terrain classification in satellite images.
- Resulted with satellite imagery overlapped with color indicaters

Natural Language Processing with Disaster Tweets | *Python, WordNetLemmatizer, GloVe, Keras, Git*

- Transformed the data using a 80/20 split of training and testing for the model.
- Utilized GloVe embedding method to match vectors with common phrases and words.
- Applied WordNetLemmentizer in the nltk library to manually remove noisy data.
- Implemented Bert Tokenizer to match strings to their Bert preset counterpart.
- Hypertuned paramters with GridSearchCV for our Bert model to better predict which are disaster tweets.

Electromyography with Gradient Boosting | *Pyton, Gradient Descent, DecissionTree*

- Developed a Gradient Boosting algorithm out of scratch using sklearn's DecisionTreeClassifier
- Traversed a directory of several EMG physical action datasets with data structures to profile the data.
- Transformed the data using a 80/20 split of training and testing for the model.
- The model classifies the patients physical actions based on the EMG data
- Compared classification outcomes with and without Gradient Boosting showing the value of gradient boosting

Certifications

CodePath – Android Development
Certiport – Microsoft Office365

Technical Skills

Languages: Java, Python, C, C++, Typescript, JavaScript, HTML, CSS, Kotlin, Apple-Script
Frameworks: React, Node.js WordPress, Material-UI, FastAPI, .Net, Next.js, pandas, NumPy, sklearn, Tensorflow, Pytorch, Keras, Langchain, Vercel AI SDK
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Android Studio, Xcode, Oracle, SQLite, MySQL, PineconeDB, OpenAI

Education

New Jersey Institute of Technology Newark, NJ
Bachelor of Science in Computer Science, Minor in Mobile and Web *3.6/4 GPA*