Prince Mallari

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Interests

Deep Learning, Machine Learning, Natural Language Processing, Computer Vision, Data Mining, Data Visualization

Skills

Programming: Python, VBA
Tools: PyTorch, Scikit-Learn, Transformers, OpenCV, Numpy, Pandas, Git, MLFlow, MS Office

Industry Experience

Data Scientist, **Booz Allen Hamilton** July 2019 – Present

- Analyzing model performance, optimizing programmatic evaluation, and developing a programmatic system and algorithm test and evaluation process for a data labelling tool for a software development team
- Created training, validation, and inference pipelines for masked language model training, multi-label classification, and named entity recognition using a BERT model
- Conducted a case study on performance of machine learning algorithms on masked entity prediction using short excerpts from character profiles

Artificial Intelligence Engineer, **Sub Rosa** February 2019 – July 2019

- Developed a machine learning pipeline used to generate real time insights on consumer behavior based on social media and demographic datasets
- Applied topic modeling, sentiment analysis, and named entity recognition to various datasets such as Twitter and NewsAPI
- Conducted research and development of proprietary algorithm on graph theory and relationship representation of text embeddings

Mechanical Engineer, **Thornton Tomasetti** October 2017 – February 2019

- Created a department profitability tracker that monitored 150+ projects, 20+ employees, and logged hours using VBA scripts in Excel
- Developed LISP and VBA code that measures, logs, and classifies damaged MEP equipment from engineering drawings for a fire loss assessment of the Grand Lisboa Palace
- Assessed conditions of HVAC and Plumbing equipment for projects of different scales from residential housings to airports and ports in Puerto Rico

Projects

Transformer Based Patient Remittance Model

- Led the development, pretraining, and fine tuning of a transformer based model to predict remittance likelihood of patients based on past hospital visits
- Designed the unique vocabulary and model input to represent medical information and hospital visit relationships
- Collaborated with data science team to evaluate various pre training approaches, model configurations, and output visualization on performance and explainability

Emotion Tracker (github.com/pmallari/emotion_tracker)

- Developed and trained a CNN model in PyTorch and TensorFlow that classifies human emotions based on facial features
- Implemented a facial extraction script to generate the images for training, validation, and test sets from a video dataset