Dax Jain

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Profile

I'm passionate about taking dives into the ocean of Data Science, explore and solve real world problems with Machine Learning, Computer Vision and Natural Language Processing. Seeking opportunity with a dynamic organization which propels me to deliver to the at most of my talent and capabilities to the fullest to display my talent and become an asset to the organization. Assuming to have a free environment where I can explore new things and also the organization helps me do that.

Experience

MACHINE LEARNING ENGINEER | INFERENZ TECH PVT. LTD. | JULY 2020 - PRESENT

· Worked on Machine Learning and Deep Learning problems on client data.
· Hands on with all types of regression and classification algorithms like Decision tree, Random Forest, SVM, Linear Regression, Logistic Regression, KNN, K-means clustering, Naive Bayes, etc.
· Hands-on with few CNN architectures like (LeNet, AlexNet, Inception, VGG, etc..) and few RNN architectures like (LSTM, BERT, etc.)
· Hand on experience with few external services of NLP like Microsoft Azure Bot Framework, Wit.ai, Dialogflow, Microsoft Power Virtual Agent, etc.
· Hands on experience with GANs.
· Hands on with big data with PostgreSQL and Snowflake.

MACHINE LEARNING INTERN | INFERENZ TECH PVT. LTD. | AUGUST 2019 – JULY 2020

· Hands on experience with Python and python libraries for Machine Learning.
· Hands on working with libraries like Pandas, NumPy, SciPy, Scikit-learn, matplotlib.
· Hand on experience with data preprocessing techniques like PCA, Chi Square, SVD, etc.
· Hands on working with Deep Learning libraries like TensorFlow, Keras, PyTorch, etc.

Projects

VIRTUAL MIRROR

· Performed processing using Open-Pose, Semantic parsing and image masking on a dataset.
· Virtual try-on of the cloths using GANs and Generative models.
· To apply Vton and CP-Vton+ algorithms to generate new cloth for the user.

OCR

· To detect the LCD panel from the image and read the LCD from the image.
· Using PyTorch model to read from LCD and Object detection model to detect the LCD panel from the image.

MEDICAL IMAGE CLASSIFICATION USING TOPOGRAPHY IMAGES
- As a part of medical image classification, to predict the given image of an eye as Keratoconus positive or negative.
- Given eye images of positive and negative keratoconus images.
- Create the custom Keras model for classification.

FACE RECOGNITION
- Detecting the features of the face using Dlib library.
- Using the FaceNet and VGG16 pretrained models differentiate the faces.
- Manually created the dataset and preprocess with OpenCV algorithms.
- Identifying model performance metrics, ROC Curves and Precision Curves.

AZURE BOT
- Trained the LUIS for our shopping domain.
- Performed testing of bot using bot framework and integrated the bot with speech services.

GROWTH PHASE IDENTIFICATION
- Gathered data from the Sentinel-2 satellites band.
- Used NDVI, EVI, SAVI and etc. vegetation indices.
- Using these indices and data growth of a plant was to be identified.

MEDICAL DATA CLASSIFICATION AND ONSETPREDICTION ON ARDS
- Accessed the MIMIC-IV data and setup on PostgreSQL server.
- Generated the table according to the problem.
- Extracted ED and ICU data and their parameters like heart rate, temperature, PaO2, FiO2, SBP, DBP, etc.
- Pre-processed and normalized the parameters according to the client requirements.
- Visualized and analyzed the parameters for more understanding.
- Created multiple ML models and Setup the database, SQL, Python files on AWS Virtual Machine.

Publications

A DEEP LEARNING APPROACH FOR GENERATING PLEASANT MUSIC
- This paper has been published in the International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) SSN: 2456-3307, Volume 7, Issue 3, pp.641-649, May-June-2021.
- This paper provides the information regarding the capacity of deep learning architectures in learning musical style from arbitrary musical corpora.

Education

- Master of Science in Artificial Intelligence and machine Learning | July 2020 | Gujarat University, Ahmedabad.

- BACHELOR OF COMPUTER APPLICATION | June 2018 | Matrushri L. J. Gandhi BCA college Modasa, Modasa.

Skills & Frameworks

- Python
- TensorFlow
- PyTorch
- OpenCV
- Scikit Learn
- Keras
- Azure Bot Framework
- SciPy
- NLTK
- Pandas
- Plotly
- XGBoost
- Matplotlib
- SQL

Certifications

- Fundamentals of Reinforcement Learning from Coursera
- High performance computing and Deep learning from IIT Roorkee
- Flask tutorial step by step from Udemy
- The Python Mega Course: Build 10 real world application from Udemy
- Sequence Model from Coursera
- Introduction to Data Science in python from Coursera
- TensorFlow in Practice Specialization from Coursera
- SQL for Data Science from Coursera
- Deep Neural Network with PyTorch from Coursera