

POOJITHA KALE

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TECHNICAL SKILLS

PROGRAMMING LANGUAGES: Python, SQL, MATLAB, C

DATA SCIENCE: Pandas, NumPy, SciPy, Scikit-Learn, Data Visualization (Matplotlib, Tableau), PySpark

MACHINE LEARNING: Supervised Learning (Random Forest, K-means, SVM, Gradient Descent, Naïve Bayes)

Time-Series Analysis, NLP, Neural Networks (CNN, RNN, LSTM), Unsupervised Learning (Clustering, PCA)

WORK EXPERIENCE

DATA SCIENCE INTERN - ZEEDBEE TECHNOLOGIES

MAY 2020 - Present

- Aggregate, explore, build and validate predictive models using Python Machine Learning frameworks
- Forecast the energy consumption of HVAC systems by modeling tonnage, water flow, the temperature of water in and out as well as the frequency of operation of the machine to attain zero energy buildings by providing holistic- monitoring and energy conservation solutions

DATA SCIENCE FELLOW - THE DATA INCUBATOR

SEP 2019 - NOV 2019

- Forecast a country's progress to achieve 100% access to electricity by 2030 by modeling the trend of investments in renewable energy, population growth and technological expansion using ARIMA
- Developed a web-scraper to crawl through the captions of photos from the NYC Social Diary and build a complex network graph showcasing social interactions for the NY Elite
- Predict ratings of restaurants in NYC planning to open new branches with an accuracy of 97% using custom-built estimators, workflow pipelines and natural language processing
- Compile a violation record-keeping database of restaurants in the NYC area for the past 10 years in SQL
- Predict accurate tags for user posts in stack overflow with an accuracy of 96% using Spark distributed computing

GRADUATE RESEARCH ASSOCIATE - PENN STATE

JAN 2017 - MAY 2019

1. *MASTERS THESIS - STUDY OF TRANSFER ENTROPY ON EPILEPTIC EEG SIGNALS*

- Quantify the amount of information flow during a seizure and identify hotspots with high accuracy in patients suffering from a neurological disorder called Epilepsy. First of its kind study to be performed on human patients.
- Published and presented my analysis at two conferences to discuss the merits offered by Transfer Entropy over the existing diagnostic techniques
 - a. [Prediction of multifocal epileptogenic zones using normalized transfer entropy](#)
 - b. [Normalized Transfer Entropy as a Tool to Identify Multisource Functional Epileptic Networks](#)

2. *COURSE PROJECT - DETECTION OF SEIZURES IN EPILEPTIC EEG CHANNELS*

- Binary classification of EEG data into a seizure or seizure-free channels for patients with Epilepsy to reduce time and costs for manually labeling data
- Develop a classifier based on features extracted from two signal processing techniques - STFT and Wavelet transform – to achieve a prediction accuracy of 85.7% for STFT and 80% for the wavelet transform

EDUCATION

M.S. IN ELECTRICAL ENGINEERING, THE PENNSYLVANIA STATE UNIVERSITY

MAY 2019

B.E. IN ELECTRONICS AND COMMUNICATION ENGINEERING, ANNA UNIVERSITY

MAY 2016