Syed Saad Karim

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EDUCATION

Louisiana State University, Department of Electrical and Computer Engineering — **Baton Rouge, LA**
Major: Master of Science in Electrical Engineering — December 2021
Graduate Minor: Computer Science

NED University of Engineering and Technology — **Karachi, Pakistan**
Bachelor of Engineering in Electrical Engineering — Jan 2016

TECHNICAL SKILLS

Programming Languages: Python, R, C, MATLAB, Octave, SAS, and SQL
Microsoft Office: Excel, Outlook, PowerPoint, Access, Word, and Adobe Acrobat
Optimization Toolbox: YALMIP, GAMS
Deep Learning Frameworks: Keras, TensorFlow
Tools/Packages: NumPy, Pandas, Scikit-Learn
Power System Software: ETAP, Power World
Big Data Frameworks: Hadoop
Data Visualization : Tableau

WORK EXPERIENCE

Graduate Assistant - Louisiana State University, Baton Rouge, LA — Sept 2019 – Dec 2021

- Worked on a daily basis with LSU Ticketing System for IT support.
- Troubleshooting of queries to resolve 10 to 15 tickets per day generated for all number of devices across department.

Electrical Engineer - Metro Power Company Limited, Jhimpir, Pakistan — Dec 2016 – Aug 2019

- Reduced the downtime of wind turbine generators by more than 50% by assisting the Nordex Team (Original Equipment Manufacturer) during scheduled maintenance in high-wind season.
- Increased total generation by more than 5 % by assisting the inspectors during end of warranty inspections after two years from the commercial-operation date.

PROJECTS

Optimal Power flow with Machine Learning

- Applied different models (which includes Decision Tree, Random Forest, SVM, GBD, CNN and Neural networks) regression on different bus networks to test model's performance and predict results.
- Implemented hyperparameters tuning using gridsearch CV to find best parameters and reduce error.

Designed ResNet Structure for Image Classification

- Implemented CNN layers to design the model and test the trained model to evaluate model accuracy.

Direct Current Optimal Power Flow using Machine Learning

- Increased the accuracy from 72% with Linear Regression algorithm, to 92% of the predicted output by incorporating Multi-Layer Perceptron algorithm using python libraries.

Clustering on Cryotherapy dataset from UCI Machin Learning data repository

- Implemented K-Means and Hierarchical Clustering algorithms using feature selection to analyze

Implementation of non-parametric regression technique in R

- Performed Gaussian Regression on engineering dataset.

Used Character level LSTM to generate English Names

COURSEWORK

Machine Learning | Data Mining | Deep Learning | Experimental Statistics 1 | Power System Optimization | Optimization approaches in CSC |Software in Power Systems | Harmonics | Renewable Energy | Electric Vehicles (EVs) and Hybrid EVs

TRAINING AND CERTIFICATIONS

- University of Michigan's Applied Plotting, Charting & Data Representation in Python COURSERA
- University of California, SQL for Data Science
- Certified University of Michigan's Python Programming Course from COURSERA