Asif Ullah

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ABOUT ME

Looking to use my skills in maths, Deep Neural Networks, machine learning, and front-end web design to create new AI solutions and solve tough problems in a rapidly evolving industry. I aim to drive technological innovation, enhance user experiences, and contribute to impactful projects that push the boundaries of technology.

EDUCATION

Advanced AI Bootcamp On Deep Neural Networks 2024
Ghulam Ishaq Khan Institute, Topi Swabi, Pakistan
- ✓ *MARKS*: 75/100 .
- ✓ *coursework*: Machine learning, Deep Neural Networks, Computer Vision, NLP, Transformer, BURT, GPT-2, GAN's.
- ✓ *Project:* Solar production and load Prediction.

Masters in Mathematics 2022-2024
University of Peshawar, Peshawar, Pakistan
- ✓ *CGPA*: 4.0/4.0
- ✓ *Thesis:* Image Denoising Based on Novel Region Edge Detector Function and Median Filtering

Bachelor Studies in Mathematics 2018-2022
University of Peshawar, Peshawar, Pakistan
- ✓ *CGPA*: 3.76/4.0
- ✓ *Thesis:* Image Segmentation and Denoising.

RESEARCH

Short and general version of my recent Research work
- ✓ Developed a novel variational model for denoising, preserving edges using a region edge detector function.
- ✓ Applied median filtering techniques to effectively remove noise from images.
- ✓ Minimized the variational model using the Euler-Lagrange method for optimal performance.

PROJECT

Short and general version of my project
- ✓ Predicting Photovoltaic (PV) Generation and Load using Machine Learning and Deep Learning Algoritms.
- ✓ Performed Data Exploration, Outlier Detection and Handling Missing Values.
- ✓ Feature Engineering, i add more features like latitude and longitude in the dataset and I also captured seasonality by converting minutes into sine and cosine functions and transformed the time into the frequency domain to better understand the underlying patterns.
- ✓ I experimented with several models, including Random Forest, XGBoost, LSTM, and Bidirectional LSTM. After testing different models, I achieved the best results with XGBoost and evaluated it using metrics like MAE, MSE, and R^2 score.
- ✓ Finally, I used the trained model to predict the masked values in the test dataset and generated a CSV file with the results.

SKILLS

Computational
- ✓ MATLAB, Python, Tensorflow, Pytorch, Keras, Machine Learning, Deep Learning , Computer Vision, Data Analysis.
- ✓ Front-end Developer, HTML , CSS and JavaScript.

Typesetting

- LaTeX:
- MS Word:

Languages

- Pashto: Mother tongue
- Urdu: Second language
- English: Very good

CERTIFICATIONS

- ✓ Deep Neural Networks from GIK institute.
- ✓ Fundamentals of Deep Learning from NVIDIA.
- ✓ Generative AI with Diffusion Models from NVIDIA.
- ✓ Full Stack Development from NAVTTC.
- ✓ Specialist in JavaScript from Certiport.

EXPERIENCE

- ✓ Two years teaching experience at Iqra English Academy, Forest Bazar, Peshawar.
- ✓ 1 year teaching experience in Ghazali Public School and College Jamrud.
- ✓ 1.5 year teaching experience in Qurtuba School and College Hayatabad.