SANA TAHIR

Summary: Artificial Intelligence Engineer with 3 years of experience designing, developing, and deploying ML models. Skilled in data preparation, model selection and training, evaluation, and deployment. Seeking a challenging role to leverage expertise in delivering impactful solutions.

Contact Info:

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Location: Islamabad, Pakistan

Education:

MS Artificial Intelligence and Autonomous Systems
National University of Science and Technology (NUST), Islamabad.
C.G.P.A. 3.7/4
2020 – 2023

BS Electronic Engineering
Fatima Jinnah Women University, Rawalpindi.
C.G.P.A. 3.59/4
2015 – 2019

Certifications:

1- HackerRank: Python, SQL

2- Reinforcement Learning Lecture Series by DeepMind

3- Python Programming: Concise Introduction

4- Python for Everybody

5- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

6- Capstone: Retrieving, Processing, and Visualizing Data with Python

Experience:

Cybersecurity Engineer: Intelligent Learning Machines (ILM), NSTP, NUST.
October 2022 – present
- Lead cyber security activities in compliance with ISO 21434
- Lead Threat Analysis and Risk Assessment (TARA) in collaboration with other functional engineers
- Lead Security Concept development
- Guide Software engineers in vulnerability analysis

Technologies Used: Ansys Medini, MS Office, C/C++, Python, MATLAB

Research Assistant: School of Interdisciplinary Engineering & Science (SINES), NUST.
November 2021 – September 2022
- Conduct literature review.
- Collect, analyze, and prepare data for use in training and testing models.
- Develop and implement algorithms and models for data analysis and prediction.
- Assist in the design and implementation of experiments to test Machine Learning models.
- Collaborate with other researchers to develop new approaches to data analysis and modeling.

Technologies Used: Python, Apache Spark, AWS.

Projects:

- Deep Learning and Reinforcement Learning based Classification of Anomalous Degradation Behavior in EV Battery Pack
- Soil Texture Classification Algorithm using RGB characteristics
- Dynamic Obstacle Avoidance for Quadrotors with Event Cameras
- Shadow Removal from RGB Images
- Image Restoration
- Image Animation using First Order Motion Model
- Phishing Detection and Prevention System
- Detecting Web Attacks with Deep Learning

Publications (In-Review):

- Reinforcement Learning based Classification of Anomalous Degradation Behavior in EV Battery Pack
- Time Series Anomaly Prediction and Classification; A Comprehensive Review

Skill Summary:

Languages: Python, SQL, C/C++

Tools: Linux, Spyder, MATLAB, AutoCAD, Proteus, LABView, Arduino IDE, Visual Studio Code, PyCharm, Anaconda

Packages: OpenCV, Scikit-Learn, Numpy, Pandas, Matplotlib, PyTorch, Darknet, TensorFlow, Keras

Statistics: Linear/Logistic Regression, Regularization, Decision Trees, Clustering, Support Vector Machine, Principal Component Analysis, Neural Networks.

Database: InfluxDB, Prometheus

Forte:

Proficient in algorithm development and optimization, with expertise in feature engineering, hyperparameter tuning, and regularization techniques. Skilled in working with deep learning and reinforcement learning frameworks.

Interest:

- Machine Learning
- Deep Learning
- Computer Vision
- Cybersecurity
- Reinforcement Learning