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MUHAMMAD UMAR

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EDUCATION:

BSc in Bioinformatics | Comsats University, Islamabad

Fall 2017 – Fall 2021

- Bioinformatics / CGPA: 3.38/4.00

WORK EXPERIENCE:

Python/AI Developer – Technovations

June 2022 – Present

- Developing a blockchain website from scratch using Django Rest Framework and integrating Machine Learning model at the backend.

Python Developer – Merik Solutions

Sept 2021 – June 2022

- Primarily responsible for developing restful APIs for web-based applications using Django Rest Framework and React.js.

Backend Developer – NCRI Solutions

Jan 2021 – Mar 2022

- Developed, maintained and optimized the backend of a large business product using Django Rest Framework.

Python Developer – Dextercode LLC

Mar 2020 – Dec 2020

- Developed and maintained business websites using Django, Wagtail and Django Rest Framework.

OTHER ACADEMIC / TECHNICAL PROJECTS:

Brain Tumor Segmentation using Encoder Decoder based Fully Convolutional Network – Final Year Project

- Performed semantic segmentation of brain tumor subregions, from multi-modal 3D MRI data provided in BraTS 2020 training dataset, using an encoder decoder based neural network architecture containing Resnet blocks.
- Achieved an efficient model with a near to state-of-the-art accuracy of 82%.
- Implemented in Python3 using PyTorch framework.

Burrows-Wheeler Aligner

- Implemented Burrows-Wheeler Transform and Aligner algorithm to perform sequence analysis and alignment using python programming and scripting.

Brain Tumor Radiogenomic Classification

- Developed an ensembled EfficientNet3D using multi-modal mpMRI scans to predict the presence of MGMT promoter methylation.

Image Classifier

- Trained deep learning classifiers based on multi-class logistic regression using MNIST, CIFAR10 and Oxford-IIIT Pet datasets.

CERTIFICATIONS:

- Machine Learning by Andrew Ng (Stanford University)
- Deep Learning Specialization offered by DeepLearning.AI

SKILLS:

Languages Python, C#, C++, SQL, JavaScript

Tools Pycharm, Visual Studio Code, Anaconda, Linux, Git, AWS

Libraries Django, PyTorch, TensorFlow, NumPy, Matplotlib, Scikit-learn, OpenCV

Interests Software Development, Computer Vision, Machine Learning, Problem Solving, Communication and Teamwork