Jazib

Data Scientist | Machine Learning Engineer

Islamabad, Pakistan | +92 (316) 3382072 | LinkedIn | Email | GitHub

EDUCATION

Bachelor of Engineering in Software Engineering (BESE) Nov 2021 - Nov 2025

National University of Sciences and Technology (NUST), Islamabad, Pakistan

- **Coursework:** Machine Learning, Deep Learning, Probability and Statistics, Linear Algebra, Data Structures and Algorithms, Object Oriented Programming, Database Systems, Calculus, Formal Methods.
- **Final Year Design Project:** FinForecastHub – A deep learning-based product that incorporates changing market scenarios in financial forecasting allowing for realistic projections of financial performance.

PROJECTS

FinForecastHub – Market Scenario Based Financial Time-Series Forecasting

- Developed an automated tool that can process financial datasets of any size—tiny, small, moderate, or large—and accurately forecast financial performance while automatically catering to the dataset's size and nature.
- Used TinyTimeMixer (TTM), a non-transformer-based time series model architecture, which is heavily pretrained and has less runtime training latency.
- Created and tested the endpoints using FastAPI and PyTest.

Skills Used: Deep Learning, Time-series analysis, Data Science, Sktime, PyTorch, TensorFlow, Scikit-Learn, FastAPI. PyTest.

Credit Worthiness in Microfinance Banks using Explainable AI

- Used Explainable AI libraries like SHAP to ensure transparency in ML models for credit worthiness in loans.
- Used Synthetic Minority Over Sampling (SMOTE) technique to address data imbalance of (88/12) ratio to (50/50).

Skills Used: Explainable AI, SHAP, LIME, Scikit-Learn, XGBoost, Numpy, Pandas, Seaborn, SMOTE.

Food Calorie Estimation using YOLO and OpenCV

- Used food images with coins in horizontal and vertical to predict calorie count present in food.
- Used YOLOv8 and OpenCV for object detection, image processing and segmentation, and then image classification, and K-Nearest Neighbor regressor for predicting calories.

Skills Used: Computer Vision, YOLOv8, Object detection and segmentation, Classification, KNN.

Face Mask Detection Using Convolutional Neural Networks

- Used OpenCV and Python Imagine Library (PIL) for image processing and segmentation.
- Used TensorFlow and Keras to make CNN architecture with convolutional and max pooling layers.

Skills Used: OpenCV, TensorFlow, Keras, CNNs, PIL.

All the projects are available on GitHub

WORK EXPERIENCE

Machine Learning Engineer

Freelance **Jan 2023 - Present**

- **Project 1:** Training and evaluating models on Loan Approval Dataset considering their genders, income, employment status and other features.
- **Project 2:** Prediction, Classification, and Clustering on Public Expenses Dataset – Worked on this freelance project to apply supervised and unsupervised ML.
- **Project 3:** Software Project Success Scoring using Machine Learning.

Software Engineering Intern

Edwiz Solutions **Oct 2022 – Dec 2022**

- During my third semester, I collaborated with this startup and worked on their mobile application.
- Provided them with two documentations for their application "SeekO" i.e., Software Requirements Specifications (SRS) Document, and Software Design Specifications (SDS) Document.

CERTIFICATIONS

Supervised Machine Learning: Regression and Classification View Certificate

Machine Learning Specialization, Certification ID: YZBSZLBRYHY5

Advanced Learning Algorithms (ML Specialization) View Certificate

Machine Learning Specialization, Certification ID: M6AW5CF5XBVJ

Unsupervised Learning, Recommenders, Reinforcement Learning View Certificate

Machine Learning Specialization: 9A4MUACVY2Q6

Neural Networks and Deep Learning View Certificate

Deep Learning Specialization, Certification ID: L72VBXCBFHDD

SKILLS

Technical Skills: Data Science, Data Analysis, Exploratory Data Analysis (EDA), Descriptive Analysis, Diagnostic Analysis, Predictive Analysis, Prescriptive Analysis, NumPy, Pandas, Data Visualization, Matplotlib, Seaborn, Machine Learning, Deep Learning, Explainable AI (SHAP), Supervised Machine Learning, Unsupervised Machine Learning, Computer Vision, OpenCV, YOLO, Python, TensorFlow, Keras, Scikit-Learn, PyTorch, SciPy, XGBoost, Neural Networks, Artificial Neural Networks (ANNs), Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Long Short-term Memory (LSTMs), Transformers, Autoencoders (AEs), Variational Autoencoders (VAEs), Generative Adversarial Networks (GANs), Diffusion Models, Python Frontend Frameworks (PyQT5 and Tkinter), Python Backend Frameworks (Flask, FastAPI).

Programming Languages: Python, C, C++, Java, JavaScript and others.

Mathematical Background: Probability, Statistics, Linear Algebra, Calculus.

Soft Skills: Literature Review, Report Writing, Presentation Skills, Communication Skills, Team Collaboration.