

Faran Masood Peerzada

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SUMMARY

Passionate Computer Engineer with 3+ years of expertise working with Embedded Systems, Artificial Intelligence, Machine Learning, and Remote Sensing technologies. Eager to offer superb analytical and computer programming skills to produce robust code to implement machine learning solutions.

EXPERIENCE

- **Centre of Agriculture and Bioscience International (CABI) Regional Research Centre, Rawalpindi, Pakistan**
- **Working as a Consultant for IT and Digital Tool development under Project titled "Plantwise Plus"** **July 2021 – Continue**
Key Responsibilities:
 - Designing and developing analysis systems to extract information from large-scale data.
 - Development of Plantwise Web Dashboard.
 - Applying data mining to Harmonize Plantwise e-clinic data.
 - Implementing Machine learning techniques on Plantwise data to acquire desired results.
- **Worked as a Machine Learning Expert on a Project titled "Mapping and Estimating Parthenium hysterophorus using Unmanned Aerial Vehicle Imagery in District Peshawar"** **October 2020 – June 2021**
Key Responsibilities:
 - Stitched UAV data to acquire mosaics using OpenCV and Python scripts.
 - Collected Hi-resolution data using Drone.
 - Calibrated Hi-resolution Multispectral Sensor.
 - Labeled and processed data using Machine learning algorithms.
- **Worked as Research Assistant on a Project "Remote Sensing – Parthenium in Pakistan"** **May 2019 – September 2020**
Key Responsibilities:
 - Developed field maps to collect High-resolution data using a DJI Matrice 100.
 - Developed a pipeline for Stitching Multispectral data using OpenCV and Python.
 - Processed Data using Machine learning algorithms.
- **National Internship Program, Pakistan** **June 2017 – July 2018**
 - **Teaching Assistantship**
Computer Vision with Dr. Waqar Shahid

EDUCATION

- National University of Sciences and Technology, College of E&ME, Islamabad, Pakistan **September 2017 – November 2020**
MS Mechatronics Engineering
 - Area of concentration: Machine Learning, Machine Vision, Remote Sensing, Robotics
 - Thesis: Evaluation of High-Resolution Airborne Imagery for Mapping Invasive Weeds in Crops
 - Advisor: Dr Waqar Shahid Qureshi
 - CGPA: 3.65/4.00
- The Islamia University of Bahawalpur, University College of Engineering and Technology, Bahawalpur, Pakistan **September 2012 – July 2016**
BSc Computer Systems Engineering
 - Area of concentration: Image Processing and Robotics
 - FYP project: Human Presence-Based Auto Switching of Room Appliances to Save Energy
 - CGPA: 3.46/4.0

SKILLS & EXPERTISE

- **Programming Languages:** Python, C++, JavaScript, MATLAB.
- **Programming Tools:** Visual Studio Code, PyCharm, Anaconda, Git, Adobe Dream viewer.
- **Image Stitching Tools:** WebODM, Zephyr Aerial.
- **Python Packages:** Pandas, NumPy, Scikit-learn, OpenCV, Keras, Matplotlib, Seaborn, PyTorch, TensorFlow, Tableau.
- **Web Development using:** HTML, CSS, JavaScript, PHP, Bootstrap, and WordPress.
- **Framework:** Django.
- **Drones:** Phantom series, Mavic Series, Matrice 100.
- **Remote Sensing Tools:** QGIS and ArcGIS.
- **Publication Tools:** LaTeX, Visio, MS Office.
- **Application in Machine Learning:**
 - Logistic Regression.
 - Linear Regression.
 - Decision Tree.
 - SVM Algorithm.
 - CNN Algorithm.
 - Dimensionality Reduction
 - Image Classification
 - Object Detection
 - Clustering
 - Data Modeling,
 - Predictive Modeling
 - Classification
 - KNN Algorithm.
 - Random Forest Algorithm.

Certifications

- **CCNA (Routing and Switching)** from CORVIT Systems, Lahore, Pakistan.
- **Linux (RHCSA)** from CORVIT Systems, Lahore, Pakistan.
- **Web Development using PHP** from Aptech Bahawalpur, Pakistan

Course Projects

- **M.Sc. Course Project**
 - Smart touch pen for smart devices
- **B.Sc. Course Project**
 - RDBMS Web-based tutorial using HTML, CSS, PHP
 - Coursework record-keeping system using C++

Languages

- English [Proficient]
- Urdu [Native]

References

- Dr. Waqar Shahid Qureshi, Assistant Professor
National University of Sciences and Technology (NUST), Islamabad Pakistan
waqar.shahid@alumni.ait.asia
- Dr. Joseph Fennell, Postdoctoral Research Associate
Jodrell Bank Centre for Astrophysics, University of Manchester, Manchester, United Kingdom
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- Rene Breton, Professor of Astrophysics
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- Dr. Muhammad Usman, Assistant Professor
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