europass

Asif Ullah

Nationality: Pakistani **Date of birth:** 10/02/2000

Phone number: (+92) 03149980234 **Email address:** std102372@uop.edu.pk

Home: Palosi Maghdarzai Peshawar/KPK, (Pakistan)

EDUCATION AND TRAINING

Master of Philosophy in Mathematics

University of Peshawar [2022 – 2023]

City: Peshawar/KPK | **Country:** Pakistan | **Website:** http://www.uop.edu.pk | **Field(s) of study:** Natural sciences, mathematics and statistics: • Mathematics | **Final grade:** 4.0/4.0 | **Level in EQF:** EQF level 7 | **Type of credits:** Hours | **Number of credits:** 30 | **Thesis:** Image Denoising Based on Novel Region Edge Detector Function and Median Filtering

Digital Signals and Image Processing, Advanced Numerical Analysis, Advanced Topics in Differential Equations, Boundary Layer Theory, General Relativity.

Bachelor of Science in Mathematics

University of Peshawar [2018 – 2022]

City: Peshawar/KPK | **Country:** Pakistan | **Website:** http://www.uop.edu.pk | **Field(s) of study:** Natural sciences, mathematics and statistics: • Mathematics | **Final grade:** 3.76/4.0 | **Level in EQF:** EQF level 6 | **Type of credits:** Hours | **Number of credits:** 132 | **Thesis:** Image Denoising Algorithm

Linear Algebra, Calculus, Numerical Analysis, Complex Analysis, Differential Equations, Fluid Dynamics, Real Analysis.

Diploma in Information Technology

Epistemics College of IT and Management Science [27/03/2024 – 05/06/2025]

City: Peshawar/KPK | **Country:** Pakistan | **Website:** https://technicalboard.kp.gov.pk | **Field(s) of study:** Information and Communication Technologies: • Software and applications development and analysis • Database and network design and administration | **Final grade:** 79.2% | **Level in EQF:** EQF level 5

Database System, Computer Programming, Web Development Essentials, Computer Networking, Graphic Design, Video Editing,

RESEARCH EXPERIENCE

[2023 – 2024]

Image Denoising Based on Novel Region Edge Detector Function and Median Filtering

- 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.

PROJECTS

[01/08/2024 – 28/08/2024]

Solar production and load Prediction

- Predicting Photovoltaic (PV) Generation and Load using Machine Learning and Deep Learning Algorithms.
- 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.

[05/11/2024 – 15/11/2024]

Attendance System

- Developed a full-stack Attendance System using Python (Flask), SQLite3, HTML, and CSS.
- Built a user panel with registration, login, mark attendance/leave, and view history.
- Prevented duplicate daily attendance entries and enabled profile picture editing.
- Implemented a leave request system with admin-side approval functionality.
- Designed an admin dashboard for managing attendance, student records, and leave status.
- Integrated custom report generation (by date range) and a grading module based on attendance.
- Followed MVC structure for clean, scalable code.

[10/12/2024 – 13/12/2024]

Contact Management System

- Developed a full-stack **Contact Management System** using **Flask**, **SQLAlchemy (ORM)**, **HTML/CSS**, and **Jinja 2 templating**.
- Designed and implemented core features to **create, read, update, and delete contact records**, following clean RESTful routing principles.
- Utilized **SQLAlchemy** for secure and efficient database integration, enabling object-relational mapping and data persistence with **SQLite**.
- Created modular and reusable frontend components using **Flask templates**, with consistent styling via custom **CSS** and static image assets.
- Structured the project using Flask's standard architecture, ensuring scalability, code clarity, and ease of maintenance.

SKILLS

Machine Learning and Deep Learning

Machine learning, deep learning / programming: Python, MATLAB and SQL / Numpy, pandas, matplotlib, Tensorflow / PyTorch, Keras / natural language processing / Computer VIsion / Data Science | Data Collection, Data Processing, Data Analysis, Data Visualisation

Full Stack Developer

Full Stack Developer / Web Development: HTML5, CSS3, JavaScript, React.js, Node.js, Express.js, Bootstrap / Back-end (Flask, Django) / TailWind CSS / Git/ GitHub

Cloud Computing

Platform : AWS Cloud / AWS Networking / EC2, S3, Lambda

Tools/Notebook

Visual Studio Code / Jupiter notebooks / Google CoLab / Kaggle Notebook / LaTeX (very good)

CERTIFICATION

[30/08/2024]

Advanced AI Bootcamp on Deep Neural Networks

Issued by: GIKI (Ghulam Ishaq Khan Institute of Engineering Sciences and Technology).

- Completed an advanced AI program with a focus on **Data Preprocessing**, **Feature Engineering**, and the application of key **Machine Learning algorithms** including **Linear Regression**, **Logistic Regression**, **KNN**, **Decision Trees**, **Random Forest**, **SVM**, **Naive Bayes**, **XGBoost**, **PCA**, and **Clustering techniques**.
- Explored core **Deep Learning architectures** such as **CNN**, **RNN**, **LSTM**, and applied them to real-world tasks including **image classification**, **text analysis**, and **semantic segmentation**. Emphasized model evaluation, optimization, and deployment using **Python**, **TensorFlow**, **PyTorch**, **NumPy**, **Pandas**, and **Matplotlib**.

[06/08/2024]

Fundamentals of Deep Learning

Issued by: NVIDIA (Certificate of Competency – Workshop)

- Completed a practical workshop focused on the core principles of Deep Learning, including neural network architecture, forward/backward propagation, activation functions, and optimization techniques. Gained hands-on experience in **image classification**, **object detection**, and **transfer learning** using **VGG16** for custom datasets. Worked with **TensorFlow**, **PyTorch**, and **NVIDIA GPU-based tools**, with a focus on **computer vision** and real-world application development.

[07/08/2024]

Generative AI with Diffusion Models

Issued by: NVIDIA (Certificate of Competency – Workshop)

- Gained hands-on experience with **Denoising Diffusion Probabilistic Models (DDPM)**, optimization techniques, and **Classifier-Free Guidance** for image generation. Explored the use of **U-Net architectures** for segmentation within diffusion workflows. Strengthened practical understanding of generative AI using **NVIDIA GPU tools** and deep learning frameworks.

[15/07/2024 – 15/10/2024]

Full Stack Development

Issued by: NAVTTC (National Vocational & Technical Training Commission)

- Completed a comprehensive training program covering both frontend and backend web development. Gained hands-on experience with **HTML**, **CSS**, **JavaScript**, **Bootstrap**, and **React** for building responsive interfaces, along with **Python (Flask)**, **Node.js**, **Express**, **SQLite3**, and **MongoDB** for server-side development. Developed full-stack applications, focusing on API integration, routing, and deployment best practices.

[12/02/2025]

JavaScript (IT Information Technology Specialist)

Issued by: Certiport

- Achieved internationally recognized certification validating core JavaScript proficiency, including variables, functions, loops, arrays, objects, conditionals, and DOM manipulation. Demonstrated ability to develop dynamic and interactive web content following best practices in coding logic and browser-based scripting.

[08/07/2025]

AWS Networking

Issued by: Coursera

- Completed a hands-on course focused on designing and managing secure, scalable cloud networks using **AWS**. Gained practical experience in **network security**, **network architecture**, **VPC configuration**, **CIDR**, **bastion hosts**, **EC2**, **Route 53**, **VPN**, and **VPC peering**. Developed a strong foundation in cloud connectivity and infrastructure best practices.

WORK EXPERIENCE

Ghazali Public School and College – Jamrud, Pakistan

City: Jamrud | **Country:** Pakistan

Teacher

[09/10/2022 – 30/10/2023]

Qurtuba School and College – Peshawar, Pakistan

City: Peshawar | **Country:** Pakistan | **Website:** https://qes.qurtuba.edu.pk | **Name of unit or department:** Mathematics - **Business or sector:** Education

Teacher

[07/11/2023 – Current]

WQ Softwares – Peshawar, Pakistan

City: Peshawar | **Country:** Pakistan | **Website:** https://wqsoftwares.com

Web developer Intern

[01/10/2024 – 04/01/2025]

LANGUAGE SKILLS

Mother tongue(s): Pashto

Other language(s):

Urdu

LISTENING C2 **READING** C2 **WRITING** C2

SPOKEN PRODUCTION C2 **SPOKEN INTERACTION** C2

English

LISTENING B2 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

RECOMMENDATIONS

Name: Dr. Haider Ali | Lecturer, Department of Mathematics, University of Peshawar
For any inquiries regarding my academic performance, please feel free to contact **Dr. Haider Ali**, Lecturer at the Department of Mathematics, University of Peshawar. Dr. Ali will be there to provide you with accurate and up-to-date information about my academic progress, achievements, and overall conduct during my studies.
Email: dr.haider@uop.edu.pk | **Phone number:** (+92) 3459234592

Name: Dr. Akbar Zada | Associate Professor, Department of Mathematics, University of Peshawar
For any inquiries regarding my academic performance, please feel free to contact **Dr. Akbar Zada**, Associate Professor at the Department of Mathematics, University of Peshawar. Dr. Zada will be there to provide you with accurate and up-to-date information about my academic progress, achievements, and overall conduct during my studies.
Email: akbarzada@uop.edu.pk | **Phone number:** (+92) 3459515060