Muhammad Faizan Aslam

Date of birth: 12/01/1999 | **Gender** Male | (+49) 15205855671 | faizanaw@gmail.com |

Zschokkestraße 25 C, Wohnungs 44, 39104, Magdeburg, Germany

About me: An engineer with practical experience and research work in evaluating production performance and performing process optimizations using artificial intelligence techniques. My research interests include sensor fusion algorithms, object tracking and object detection algorithms especially on resource constrained embedded systems.

WORK EXPERIENCE

01/07/2019 – 31/12/2020 – Lahore, Pakistan
PRODUCTION ENGINEER – NISHAT MILLS LTD

- Implementation of ML - Object Detection Algorithms for Fault Detection in Manufacturing Processes using Python Libraries (OpenCV, scikit-learn, skimage).
- Python, C for Computer Simulations of Predetermined Motion Time Systems (Dynamics and Vibrations).
- Fatigue Life Prediction of Structure Components, Durability Testing of Vehicle Structure Components.

03/12/2018 – 30/05/2019 – Lahore, Pakistan
INTERNSHIP – DESCON ENGINEERING

- 2D/3D/VR – Modeling, Simulation, Optimization, Visualization of Production Processes with Plant Simulation Software.
- Process Simulation, Line and Assembly Simulation, Bottleneck analysis, SMED, Change-over Optimization, Cost Reduction.

01/06/2018 – 01/08/2018
INTERNSHIP – NISHAT MILLS LTD

- Optimization of Thermal and Treatment Processes in the Production Hall e.g. Steam Cogeneration and Cooling Towers.
- Pump/Blower Optimization, Power Plant Design for Maximum Resource Efficiency.

EDUCATION AND TRAINING

01/04/2021 – CURRENT – Magdeburg, Germany
MASTERS OF SCIENCE IN DIGITAL ENGINEERING – Otto von Guericke University Magdeburg

- Machine Learning(ongoing), Information Retrieval(ongoing), Introduction to Sensors Data Fusion, Data Mining, Introduction to Software Engineering, Databases.

07/09/2015 – 21/06/2019 – Islamabad, Pakistan
BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING – Pakistan Institute of Engineering & Applied Sciences Islamabad (PIEAS)

- Principal Subjects: Numerical Methods, Computational Fluid Dynamics, Mechanical Design and Analysis (FEM)
- Research Tracks: Parametric Analysis of Non-linear Dynamic Systems for Diagnostics and Condition Monitoring; Particle Tracking and Discretized Mixture Models in CFD for Characterization of Intrinsic Multiphase Flow in an Induced Draft Cooling Tower.
- Thesis Title: Implementation of Distributed Sensor Fusion Algorithms in Developing Multi-DoF Dynamics Testing Machine.

01/09/2013 – 01/07/2015 – Lahore, Pakistan
HIGH SCHOOL CERTIFICATE/UNIVERSITY QUALIFICATION – Government College University Lahore

CREATIVE WORKS

Projects

- Implementing Real Time-Lightweight Object Detection Algorithms Raspberry Pi using a Camera Network for Detecting Manufacturing Faults.
- Development of General Purpose Money Management App 'Treasure Trove' using Android Studio.
- Development of Intelligent Chatbot for Food Delivery Service using NLP Algorithms.
- Computational Design and Analysis of a Multi-Degree of Freedom Automaton Hand.
- Design of a Pusher Configuration Li-Po operated Aircraft Module.

Volunteer/Organizational Experience

- Campus Ambassador International Mechanical Engineering Convention 2017-18.
- Lead Member in Developing a Prototype Electric Vehicle for Shell Eco Marathon Asia.
- Summer Volunteer in Pakistan Citizens Foundation a Non-Profit Organization where I was exposed to on ground realities of challenging areas of Pakistan.
- Presentation of a Prototype Line Follower Robot" for National Engineering Robotics Competition 2018.
- Head Information PIEAS Robotics Society.
- Head Organizer PIEAS Open House Seminar Conference.

DIGITAL SKILLS

Image Processing (Image Classification, Object Detection) | Python Libraries: NumPy, Pandas, Scikit-learn, Matplotlib, NLTK, NetworkX, SciPy, TensorFlow; | Java | SQL | Git | HTML