**Tahir Waheed**

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**Nationality:** Pakistani

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**EDUCATION**

**University of Reutlingen**, Germany **03/2015-08/2018**

**Masters of Science**, Process Analysis and Technology-Management, GPA 1.8/5.0

**Majors**: Process Analytics, Measurement and Control Technologies, Sensor Technology, Multimodal Simulation and Data Analysis, Image Processing, Project Management, Project Based Learning

**Thesis**: *Development of an image process app for pattern recognition in purview of automotive coatings.*

**University of Engineering and Technology**, Lahore, Pakistan **09/2010-08/2014**

**Bachelor of Science**, Chemical Engineering, GPA 3.162/4.0

**Thesis**: Mathematical *Designing of a distillation column for the production of poly-lactic acid on commercial scale.*

**WORK EXPERIENCE**

**Specialist IT Enterprise Architecture: Continental Automotive GmbH**, Eschborn, Germany **09/2020-ongoing**

* Supporting the development (Requirements collection, implementation and Configuration) of LeanIX as new EAM SaaS
* Maintaining the integration with various other tools (Mendix, SMTX etc.)
* Currently the acting Service Owner for LeanIX
* Application Portfolio Management with EAM tools (PlanningIT , LeanIX )
* Maintenance of different architecture layers such as ( Application, Technology, Data and Business Layer) based on TOGAF Framework
* Supporting Businesses globally with Application hosting and required IT infrastructure
* Managing collaboration between business and IT and ensuring the good data quality
* Training, consulting and coaching IT and business organizations related to architecture management topics
* Supporting day to day EAM activities and providing 3rd level support for EAM tools

**POC: Application hosting as a (docker) containerized approach to reduce the cost of on premises IT infrastructure**

**Corporate IT Graduate: Continental AG**, Hannover, Germany **09/2018-08/2020**

Working as an IT Trainee that involves 4 different projects within Continental divisions

**1st Assignment**: POC for Conti Data Lake and management of different servers and dashboards (CFIT GBA Hannover)

* Worked on a POC to transfer data from different SAP systems to Conti Data Lake using Knime and Python
* Installed and configured a Knime server and presented it in cross departments
* Configured and managed the GBA dashboard monitor
* Setup of Raspberry PI for Meeting-Room MVP O365
* Learnt the datacenter management using Proxmox virtual environment
* Web scraping for automatic update of AWS credentials for local machine
* Low code platform development using Mendix (as a graduate team project)

**2nd Assignment:** Manufacturing Data Lake (MDL), Automotive IT MA, Nürnberg

* Worked on various topics in a big team during the agile development of an AWS based Data Lake
* Performed fundamental research on Data catalog topic and arranged presentations from external vendors
* Validated data and quality in MDL via SQL programming
* Created flow diagrams of software architecture processes and managed in confluence
* Created video training material for BI (MicroStrategy) in MDL
* Learnt Agile Frameworks (Scrum and SAFe) and project management in JIRA
* Learnt working with various technologies of Amazon web services (AWS)

**3rd Assignment**: Concept and pilot implementation of the best cloud backup solution for Continental

(Corporate Infrastructure IT, Timisoara Romania)

* Installation and configuration of a cloud read HPE StoreOnce system
* Created backup and restore jobs in local and cloud-based stores using HP Data Protector
* Setup of Netapp ONTAP cluster mode and configured all components using OnCommand System Manager
* Learnt incident handling of backup and restore jobs via HPSM and Icinga
* Learnt the general process of ITSM within Continental
* Performed server virtualization using Vmware Vsphere

**4th Assignment**: Implementation and Roll-Out of a secure network in all automotive locations

(Automotive IT Infrastructure, Eschborn)

* Design and calculation of Firewall sizing by location
* Verification of current available network segmentation by location
* Support quotation/ordering process
* Support set-up of individual installation and asset management
* Traffic flow analysis and definition of FW rules
* Integration into monitoring solution
* Preparation of standard reports and coordination with external service provider

**BASF Coatings GmbH**, Münster, Germany. Project Supervisor: Dr. Yevgen Zhmayev **02/2018-08/2018**

**Thesis Student**: *Development of an image-processing app for pattern recognition and shape analysis*

* Algorithm development for image processing techniques
* Developed different schemes for image pre and post processing, for extracting the region of interest
* Compared instabilities within different images by Fast Fourier Transform and studied different patterns
* Automated the whole process by developing a standalone software for image analysis

**BASF Coatings GmbH**, Münster, Germany. Project Supervisor: Dr. Yevgen Zhmayev **10/2017-12/2017**

**Internship**: *Development in industry 4.0 leading to digitalization*

* Fundamental research based on image analysis
* Fundamental research on different digital topics
* Performed morphological image processing for extracting shape based region of interest
* Developed different algorithms for post processing to collect data
* Analyzed data with different statistical data analysis techniques

**Reutlingen Research Institute**, Germany. Project Supervisor: Prof. Dr. Torsten Textor **09/2016-02/2017**

**Internship**: *Development of silica Nano particles and their modification with different functional groups.*

* Synthesized silica Nano particles on laboratory scale and modified them
* Analyzed images with scanning electron microscope
* Observed trends for different design of experiments by using excel and MATLAB
* Proposed very accurate design of experiments for producing different sized Nano particles

**Bosch Sensortec. GmbH**, Reutlingen, Germany. Project Supervisor: Dr. Thomas Block **06/2016-09/2016**

**Internship**: *Development and testing of Bosch MEMS gas sensors.*

* Conducted experiments and created use cases in order to test gas sensor (BME 680)
* Generated real time data with python algorithms by implementing different test cases
* Compared the gas sensor against analytical methods such as IMS and CO2 sensor
* Performed statistical data analysis with MATLAB and Excel to observe trends and to explain the behavior of sensor for different use cases

**Reutlingen Research Institute**, Germany. Project Supervisor: Prof. Dr. Karsten Rebner **12/2015-02/2016**

**Research Assistant**: *Installation of hardware and software of a new HPLC machine.*

* Installed a new high-performance liquid chromatography machine(HPLC) from the beginning
* Created an interaction between machine and its software by setting different parameters of the software so that it could run for measurements
* Ran successfully the machine and documented everything

**TECHNICAL EXPERTISE**

**IT Skills**: MATLAB (Scripting ,Image Processing, Signal Processing, GUI and App Development), Algorithm Development, Python, C and C++(Intermediate), SQL, Windows and Unix CLI, Amazon Web Services, Cloud Computing, Datacenter Management, Server-Client Management, Virtualization tools (Vmware), HPE Data Protector and StoreOnce, HPSM, Netapp ONTAP, Backup/Restore tools, Disaster Recovery, JIRA, Github, Web Design (HTML5, CSS3, WordPress, Drupal), Microcontrollers (ARM Cortex), MS Office

**Software Testing**: Black box and White box testing (intermediate level)

**IDE**: Keil µVision, Eclipse, Spyder, Visual Studio, Dev C++, Intel XDK

**Data Analytics**: Tableau, Unscrambler, Power BI, Knime, VisualNow, Rapidminer, PLS and MIA Toolbox, Excel

**Business Informatics**: IT Agile Project Management, Agile Development, Stakeholder Analysis, Communication between business and IT, Low Code Platform Development (Mendix)

**Languages**: English (C1), German (B1.2), Urdu/Hindi (native)

**Voluntary PROJECTS**

* Implementation of Moore Finite State Machine to design Traffic light signal using TI ARM microcontroller,

Keil µVision and external hardware.

* Design of Security Alarm System using LEDs and Switches.
* Internet of Things: Communication of ARM microcontroller with a weather server using a Wi-Fi booster pack

**PATENTS/INVENTION DISCLOSURE**

* Internship/Thesis at BASF led to a patent/invention disclosure of a software for Industry 4.0, standard procedure to file the patent is yet to be done.

**ONLINE CERTIFICATIONS**

* Embedded Systems - Shape The World: Microcontroller Input/output (*a course of study oﬀered by UTAustinX, an online learning initiative of University of Texas System through edX*).
* MATLAB Onramp (*self-paced online training)*
* Diploma in C programming
* Fundamentals of Web Development
* Python A-Z for Data Science
* Mendix rapid developer

**SOCIAL ENGAGEMENT**

* Trained different groups of around 50 students for exam preparation in Pakistan at college level.
* Consulting students to apply for study abroad by writing on various blogs and social media platforms.
* Ran a small business of printed mugs based on Entrepreneurship project during BSc.