AHMAD WAQAS KHILJI

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Summary

I am a highly motivated and self-driven engineer and have experience in the industry of automotive, Internet of things and technology. I worked in different roles during the product life cycle.
My future ambition is to obtain a challenging position in a competitive professional environment in order to apply my existing technical and management knowledge and learn new things.

Work Experience

08/2018-Present

Infineon Technologies, Munich
Requirement and Verification Manager
https://www.infineon.com/
- Responsibilities Requirements Management and Verification Activities
    o Manage the requirements throughout the product life cycle.
    o Provides the requirements Management plan.
    o Provides the product Verification plan.
    o Ensure the quality of the requirements.
    o Drive, Moderates requirements reviews.
    o Ensure the requirements traceability.
    o Ensure the defined processes followed.
    o Reviews all verification results and follow up.
    o Support the project Manager in audit assessments.

12/2016-07/2018

BLOKS.GmbH, Munich
Test Automation Engineer
http://bloks.de/
- Responsibilities includes Building the test automation infrastructure for the embedded devices using the HIL (hardware in loop)
    o Creating the test plan
    o Creation of the test cases in Vteststudio and python.
    o Design the test Jig to stimulate the embedded devices.
    o Integrate the test jig with VTsystem (CANoe)
    o Integrated the Vector tool (Vteststudio,VTsystem)

04/2016-06/2016

Bosch SensorTec, Reutlingen
Internship, System Level testing of Mobile Sensors
https://www.bosch-sensortec.com/
- Responsibilities includes system level testing of mobile sensors (Accelerometer, Gyroscope, Gravity etc) using a black box methodology.
    o Creation of test cases using python.
    o Modified the existed framework in python.
    o Automation the framework using Jenkin.
    o Bug fixing in the framework.
    o Automated report generation.
    o Use python to automatically generate the compiler warning report.

02/2015-02/2016

Bosch connected devices and solutions, Reutlingen
Internship and Master Thesis,
Framework for Integration and System Testing for Internet of Things(IoT)

http://www.bosch-connectivity.com

- Design and implement an integration and system level testing framework for embedded devices focusing Internet of things Products. It involves the Evaluation, Design, Development and Testing activities.
  - Ported Cortex M0 tool chain in linux environment which includes the compiler, debugger , flasher using the make utility.
  - Evaluate the existing unit testing framework in python (Unittest,pytest,nose).
  - UML design of the testing framework.
  - Implemented the design of the framework in python.
  - Design and Implemented the coordination protocol between the embedded device, TestBed and the framework.
  - Integrate the framework with continuous integration server Jenkins.
  - Write flashing utility for embedded devices.

07/2013-10/2013
07/2014-10/2014   **Infineon Technologies, Munich**
                     WorkStudent
                     http://www.infineon.com/

- Responsibilities include in the requirement engineering domain and Meta modeling for VHDL code generation of chips using the metagen framework.

  - Worked on requirement engineering tool Visure.
  - Worked in python to fill the Visure fields with excel sheet data.
  - Design the meta model using UML classes.
  - Fill the model with data.
  - Create corresponding class tables in Alchemy database to store data.
  - Use metagen framework to generate the code based on the UML diagram.

01/2013-06/2014   **Technical University Ilmenau**
                     Research Student (HIWI)
                     http://www.tu-ilmenau.de/

- Design, implement and test a software using Matlab to solve a complex problem to identify the bacteria growth inside a microscopic image.
  - Image pre-processing.
  - Image segmentation.
  - Region of Interest.
  - Hough Algorithm and data extraction

02/2010 – 06/2012   **Teletaleem (Pvt) Limited, Islamabad, Pakistan**
                     Software Design Engineer
                     http://www.teletaleem.com/

- Teletaleem is a online E-learning platform for remote education. Its main features are audio, video conferencing, Whiteboard and document sharing support based on flash technologies.
  - Active team member from project design till implementation
  - Implemented whiteboard functionality.
  - Design and implemented message passing protocol at backend.
  - Performed unit, integration and system testing.

09/2007 – 01/2010   **Comcept (Pvt) Limited, Islamabad, Pakistan**
Firmware Design Engineer
http://www.com-cept.com

- Worked as an embedded engineer on projects CNG dispenser and GSM payphone.
  o Involved in the requirement analysis process.
  o Team member in the system design and implementation process.
  o Worked on ARM,AVR,TI,PIC based microcontroller.
  o Responsible for rapid prototyping.
  o Verification of PCB according to the schematics.
  o Responsible for unit, Integration and system testing.

Education

2012 - 2016   **Technical University of Ilmenau, Germany**
MSc: Research in computer and system Engineering.

2003 –2007   **COMSATS University of Science and Technology Islamabad, Pakistan**
BSc Computer Engineering

Skills

Programming: Javascript, Java, Embedded C, C, C++, Python
Test Methodology: Test Automation, HiL, SiL, Blackbox tesing, Whitebox Testing, Experience based
Industry Knowledge: Automotive, IoT, Technology, Embedded systems , Web 2.0
Testing Tools: CANoe, VTsystem, selenium, Cypress testing framework, Tessy, I-system
Requirements tools: JAMA, Visure, code Beamer
Microcontrollers: AVR, PIC, LPC(ARM), Cortex M0,8051, TI
Protocols: TCP, UDP, HTTP, HTTPS, FTP
Others: Git, Jenkins, Jira, Confluence, Shell Scripts, Cmake, MySql
Platform: Windows, Linux, RTOS

Trainings and Seminars

2019   Requirements Quality
2018   Jama traning (Requirements Management Tool)
2017   CANoe Training (VTsystem,Vteststudio)
2016   **ISTQB** software testing Certification foundation level

Achievements

- Running a YouTube Channel
- Elected as captain of university cricket team in 2006.
- Participated in 3rd international workshop FIT 2005
- Participated in all Pakistan electronic exhibition 2005 UET Lahore (4th prize).
- Awarded best Urdu Debater for 10 years in school.