## Resume

Usman ASHRAF

+49-176-37002536 u.ashraf1988@gmail.com Languages: English, German(B1) Driving License: B Böblingen, Germany



## **Work Experience**

Mar. 2019  $\rightarrow$ 

#### Skills:

- C/C++, python
- IAR, Green Hills
- AUTOSAR
- Embedded Linux (Yocto)
- Automotive Android
- Application Development
- Bug-fixing
- Agile Methodologies

## **Software Engineer**

Alps Alpine Europe GmbH Stuttgart, Germany

- Developing automotive embedded ECUs for OEMs in C/C++.
- Developing diagnostic services and routines in C/C++.
- Custom bootloader development with different interfaces.
- Device drivers development in C/C++.
- Implementing security concepts for memory consistency.
- Reverse engineering of map, hex and binary files.
- Software development for in-vehicle-infotainment-system in with Yocto embedded Linux and Google Android automotive.
- Tools development in python.
- Continuous integration and build issues resolving.

### Nov. $2016 \rightarrow \text{Feb. } 2019$

## Skills:

- C/C++, Java
- Embedded Linux
- Application development
- Code optimization
- Bug-fixing
- Agile Methodologies
- CI & Build Management
- GIT, SVN, Jenkins

## **Software Developer**

Aquilius Research GmbH (Advantest) Böblingen, Germany

- C/C++ libraries development for multiple Red Hat Linux OS with different GCC and open-source libraries versions.
- Multithreaded C++ APIs with design pattern development.
- Inter process communication based Application development.
- Device drivers development in C/C++.
- Embedded device drivers development.
- Static code analysis with Coverit, Dynamic code analysis with Valgrind's tool Memcheck, Callgrind and Helgrind.
- Domain specific raw Ethernet and TCP/IP based Application development.
- Bugs reproducing in the R & D center, debugging, bug fixing, testing for bug fixes and reporting solutions to customers via Jira and Documentation portal.
- Continuous integration and build management with Jenkins.

# Nov. $2015 \rightarrow May. 2016$

# Trainee Software Developer

d-fine GmbH Frankfurt, Germany

#### Skills:

- C/C++, Python, Java
- Application development
- Bug-fixing
- GIT, SVN, Jenkins

- Platform independent C and C++ software development using open source libraries BOOST, EIGEN and XERCES.
- C++ Code optimization and improvement of data logging.
- Platform independent C and C++ automated unit tests and integration tests development.
- Programming Languages Used: C++, C#, Java-JNI and Python for APIs.

May. 2015  $\rightarrow$  Nov. 2016 Mar. 2015  $\rightarrow$  Sep. 2015

Master Thesis Master Internship

Robert Bosch GmbH, Germany

#### Skills:

- C/C++, Python, Matlab
- Application development
- Bug-fixing
- GIT, SVN, Jenkins

- Re-designing and refactoring a sequential simulation tool into a layered multithreaded pipes and filters architecture.
- Developing C++ and C#.NET APIs for C native dlls.

### Education

Hochschule Darmstadt Sep. 2013 → Nov. 2016 Master in Electrical Engineering and Information Technology

University of Applied Sciences Darmstadt, Germany.

Grades in %: 70

COMSATS IIT Aug. 2008 → Sep. 2012 **Bachelor in Electrical Engineering** 

COMSATS Institute of Information Technology, Pakistan.

Grades in %: 87

# **Professional Membership**

ACM

Since Sep. 2023

PFC.

Since Sep. 2012

**Professional Membership** 

Association for Computing Machinery (ACM)

**Registered Engineer** 

Pakistan Engineering Council (PEC)

### Certifications

C++

Nov. 2022

Python Nov. 2022

**Embedded System** 

Oct. 2022

**Object Oriented Implementation Using C++** 

IBM

Python for Data Science, AI & Development

**IBM** 

**Embedded Software and Hardware Architecture** 

University of Colorado Boulder, USA

## **Professional Platforms**

LinkedIn

www.linkedin.com/in/usmanashrafelectricalengg

Github https://github.com/UsmanAshraf1988

References

(Will be provided on Request.)

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