### **NAUMAN SHAHID**

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#### **EDUCATION**

### Bachelor of Computer Engineering - CGPA: 3.68/4.00

June 2014

National University of Sciences and Technology, Islamabad, Pakistan

College of Electrical and Mechanical Engineering

Final Year Project: An FPGA based approach to deep packet inspection for the purpose of application aware routing in content delivery networks using NetFPGA 10G

# University of Cambridge International Examinations GCE A-Levels

June 2010

St. Anthony's College, Lawrence Road, Lahore, Pakistan

4 A-Levels: Mathematics (A), Physics (A), Chemistry (A\*), Computing (A)

## University of Cambridge International Examinations GCE O-Levels

June 2008

St. Anthony's College, Lawrence Road, Lahore, Pakistan

8 O-Levels including Mathematics (A), Physics (A), Chemistry (A), Computer Studies (A)

### **WORK EXPERIENCE**

### Afiniti International Holdings Ltd. | Switch Interface Engineering

Software Engineer

April 2017 - Present

- Development of IPCC Telephony Switch (Cisco, Genesys, Avaya, Huawei, Unify) Interface Stacks for the routing of interactions on the basis of Afiniti's Enterprise Behavioral Pairing Artificial Intelligence
- Development of a messaging system in object oriented paradigms with a load balancer scalable to an 'n' number of servers distributed across the enterprise network with over a hundred thousand clients
- Development of a TPKT Packet Handler for TCP Sockets in line with RFC 1006 and RFC 2126
- Development of a wrapper for UDP Sockets for the reliable and in-order delivery of datagrams on the grounds of sliding window protocol and flow control

### Mentor Graphics Corporation | Embedded Systems Division | Wired and Wireless Connectivity

Senior Software Development Engineer

August 2016 - April 2017

- Took sole ownership of a project involving TÜV SÜD Safety Certification of a lighter version of the SPI Driver for Nucleus SafetyCert
- Porting and testing WLAN drivers, WPA Supplicant, HostAP Daemon for Nucleus RTOS
- Developing Nucleus ReadyStart solutions for customers for their Internet of Things applications using varied ARM based embedded development platforms by Texas Instruments, Atmel, Broadcom, NXP, and Freescale
- Working with varied WLAN Modules by Texas Instruments, Broadcom, and Qualcomm Atheros
- Responsible for the component testing and maintenance of Board Support Packages
- A short stint with USB Host and Function stacks; Performed routine maintenance and additions in the codebase pertaining to EHCI micro-frame footprint optimization, Composite Device Interface Association Descriptors and SCSI Mass Storage Eject functionality on Microsoft Windows and Linux
- Responsible for reducing the USB Function and Host Controller Stacks memory footprint by ~128%
- Practicing Agile Software Development workflow making use of Jira for Issue Tracking, SVN for Software Revision Control and Jenkins for Continuous Integration

### Software Development Engineer

November 2015 - July 2016

- Development and Porting of WLAN Device Drivers for varied modules and CPU architectures for Nucleus RTOS
- Maintenance of a ported version of WPA Supplicant and HostAP Daemon for Nucleus RTOS
- Development of IEEE 802.11 Client and Access Point applications for Nucleus ReadyStart in line with client requirements
- Active involvement in all the Software Development Life Cycle processes pertaining to Requirements Gathering, Device Driver Development, Porting, Testing, and Documentation

1

### u-blox AG | Embedded Cellular Software

Associate Engineer

August 2014 - November 2015

- Development of a Binary Difference Generator free of memory leaks and with a very small footprint suitable for memory constrained embedded platforms for Firmware Over-The-Air Updates
- Maintenance of the LTE UE Protocol Stack at the MAC Layer in accordance with 3GPP 36.321 specifications following MISRA C coding standards
- Scripting test benches for the conformance testing of the LTE UE Protocol Stack in addition to using Anite's Conformance Toolset
- Well versed in code quality assurance and robustness; Performed LINT, CLANG and Static warning removal sprints
- Followed Agile Software Engineering workflow; Experienced with Software Revision Control, Issue Tracking, and Continuous Integration Systems of the likes of Perforce, Jira, and Jenkins

### Telenor Pakistan

**Business Process Automation Intern** 

July 2014 - August 2014

• Sales pipeline web portal development and deployment across Telenor Pakistan intranet

### Techlogix Pakistan

Business Intelligence Intern

June 2013 - August 2013

• BI Reporting Project (using Oracle Business Intelligence) for a financial institution in the Gulf

# Siemens Pakistan Engineering Co. Ltd.

Electrical Engineering Intern

July 2012 - August 2012

• Sales Engineering tasks of the Transformers Business Unit pertaining to tender proposals and technical presentations

#### **SKILLS**

### **Programming Languages:**

C, C++, C#

## Scripting and Simulations:

Python, MATLAB, Bash

## **Embedded Systems:**

Embedded C, ARM Architecture, GDB, Mentor Graphics Nucleus RTOS, Linux Kernel module programming, USB Log Analysis, WLAN/Ethernet Packet Analysis

# TRAININGS AND CERTIFICATIONS

- British Council Pakistan IELTS: 8.0 / 9.0 Bands
- LTE Air Interface ELP-4003 Certified (ENKI Poland)

### **ACCOLADES**

- GPA Based Merit Scholarship throughout Engineering School (Dean's Honor Roll)
- Engineering School Senior Year GPA: 4.00/4.00
- Amongst the top 7% in Engineering School (5th position across the entire batch of over 70 candidates)
- Engineering School Senior Year Project nominated for Rector's Gold Medal
- Gold Medal for Best Pre-Engineering score in GCE A-Levels