Sana Nazir

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EDUCATION

PURDUE UNIVERSITY
MS Computer Science
May 2018 | West Lafayette, IN

LAHORE UNIVERSITY OF MANAGEMENT SCIENCES
BS Computer Science
Dec 2005 | Lahore, PAKISTAN
Minors: Mathematics, Psychology

GRADUATE COURSEWORK

COMPUTER SCIENCE
Parallel Programming
Programming Parallel Machines
Computer Architecture
Computer Design & Prototyping
Physics of Quantum Computing
Operating Systems
Compiling & Programming Systems
Data Communication & Networks
Information Security
Cryptography
Abstract Algebra Honors
Socioeconomic & Legal Aspects of Security

AERONAUTICS
Computational Fluid Dynamics
Fluid Dynamics
Intermediate Aerodynamics
Multidisciplinary Design Optimization

ACADEMIC PROJECTS

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2018 | Map Reduce Word Count (C++,OpenMP, MPI)
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2018 | Report: Utilization of Deep Learning Algorithms in Aerodynamics
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2017 | GCC Compiler support for analyzing uninitialized local/global variables (C)
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2016 | XINU OS Components including Scheduler & Virtual Mem Support (C)
.
2016 | UDP based talk(chat) App UDP based audio streaming App (C)

EXPERIENCE

INTEL | Engineer
- Aug 2019 - Present | Software Engineer IOTG - Compiler Architecture
- Oct 2018 - Aug 2019 | Software Engineer IAGS - Systems Software
- May 2017 - Aug 2017 | Graduate Software Engineering Intern
- May 2016 - Aug 2016 | Graduate Software Engineering Intern

PURDUE UNIVERSITY | Graduate Staff
2015 - 2018 | 20 Hr Graduate Staff positions
- Aug 2017 - May 2018 | Teaching Assistant Computer Architecture
- Aug 2016 - May 2017 | Graduate Research Assistant Purdue Libraries
- Aug 2015 - May 2016 | Graduate Research Assistant Purdue Libraries

CONTRACTUAL EMPLOYMENT
2010 – 2014 | Teaching & Software Consultation
- QC Technologies | Technology Consultant
- 4MWireless (acquired by Ublox) | Lead Architect for Multi UE LTE Toolset
- Lahore University of Management Science (LUMS) | Teaching Assistant Network Security, Electricity & Magnetism

MENTOR GRAPHICS | ESD Networking Team
2007 – 2009 | Embedded Software Development Engineer

XAVOR | Broadcom Client Services & Business Development
2006 – 2007 | Software Development Engineer

SELECT PROJECTS

INTEL
2019 | PlaidML execution provider for ONNX Runtime
Created the interface to enable ONNX Runtime to run using PlaidML as the execution provider, by utilizing and extending the Tile eDSL to define individual operations.

2018 | Mohawk River Ambient Compute Prototype
Created a Face Recognition Module utilizing a 360 camera device for a multi-OS multi-processor shared peripheral system.
- Prototype showcased in COMPUTEX 2019.

2016 | Teleconferencing & iRobot Obstacle Avoidance
A 360 teleconferencing application capable of handling a dynamically changing environment with automatic speaker detection & an iRobot device with obstacle avoidance capability were created using multi-camera depth data and computer vision algorithms. Built using Intel RealSense Cameras.
- Received a significant effort and achievement award and compensation bonus for measurable work group impact.

MENTOR GRAPHICS
2009 | C, C++ | AES-XCBC-MAC (RFC 3566)
AES-XCBC-MAC implementation for Nucleus Cipher Suite (security library for the Nucleus RTOS that bundles together a set of authentication and encryption algorithms)

2008 | C, C++ | SPI Driver (NXP LPC3250)
Nucleus SPI Driver support for the NXP LPC3250 controller