

# Sana Nazir

sananaazir@gmail.com | 765.771.9431 | www.linkedin.com/in/nsana

## 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

- 2018 | Map Reduce Word Count (C++, OpenMP, MPI)
- 2018 | Report: Utilization of Deep Learning Algorithms in Aerodynamics
- 2017 | GCC Compiler support for analyzing uninitialized local/global variables (C)
- 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 was 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