

Sana Nazir

sananaazir@gmail.com | 765.771.9431 | sananaazir.github.io

EDUCATION

PURDUE UNIVERSITY

MS AERONAUTICS

Dec 2022 | West Lafayette, IN

PURDUE UNIVERSITY

MS COMPUTER SCIENCE

May 2018 | West Lafayette, IN

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

AERONAUTICS

Computational Fluid Dynamics

Fluid Dynamics

Intermediate Aerodynamics

Rocket Propulsion

Hypersonic Propulsion

Advanced Thermodynamics

Combustion

ACADEMIC PROJECTS

.
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)

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2016 | UDP based talk(chat) App
UDP based audio streaming App (C)

EXPERIENCE

PURDUE UNIVERSITY | GRADUATE STAFF

- Aug 2021 - Current | Teaching Assistant Mathematics Dept

INTEL | ENGINEER

- Aug 2019 - July 2021 | 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

2019 - INTEL | 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 - INTEL | 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 - INTEL | 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.

2009 - MENTOR GRAPHICS | 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 - MENTOR GRAPHICS | C, C++ | SPI DRIVER (NXP LPC3250)

Nucleus SPI Driver support for the NXP LPC3250 controller