

KHAN SHAIKHUL HADI

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PROFESSIONAL EXPERIENCE

Research Assistant

📅 2021-Present

ARPERS RESEARCH GROUP, UCF

Research Focus : Crash consistency for parallel programming on persistent memory machine

📍 Florida, USA

Teacher Assistant

📅 2022

SCHOOL OF ENGINEERING, UCF

Course : CDA 5106 (Advance Computer Architecture). Helped students to understand complex topics and evaluate programming & exam papers

📍 Florida, USA

Research Engineer

📅 2017-2018

📍 Dhaka, Bangladesh

BUET-ENERGYPAC RESEARCH COLLABORATION HEQEP SUB-PROJECT CP#3817

Designed and characterized *BUET VLSI Standard Cell library*

RESEARCH EXPERIENCE

Durable Atomicity for Non-Volatile Memory (NVM)

📅 2021-2022

Paper submitted in DAC'23

Developed a generalized solution to provide durable atomicity for parallel programming in NVM machine

BUET LED Driver Digital IC

📅 2017-2018

Fabricated on June, 2018

Designed a mixed signal constant current LED driver controller using *BUET VLSI Standard Cell library*. Fabricated IC has been tested and analyzed for future development purpose

Optoelectronic Properties of InGaAs/InP Single Photon Avalanche Diode (SPAD)

📅 2016-2017

B.Sc. Thesis Work, published in ICTP

Developed a MATLAB simulator to model for InGaAs/InP based SPAD based on established theories . Work published on *IEEE International Conference on Telecommunications and Photonics (ICTP)*

ACADEMIC PROJECTS

Personal OS

Developed personal OS from scratch to understand interaction between OS and hardware. Current state features boot-loader, interrupt handler, Video and Keyboard driver and Future development plan includes terminal command, file system etc.

Load-flow Analysis Software

Matlab based Gauss-seidel load flow analysis software with Matlab GUI user interface and could analyze up to 100 power grid bus

64KB SAP Microcomputer

16-bit, single bus, 16 instruction SAP microarchitecture circuit is designed in Proteus Circuit Simulator. C++ based compiler is designed to convert assembly instruction to binary input for the circuit.

Sentiment Analysis of Stocks from Financial News with tweeter feedback

Analyze public sentiment for a company stock based on relevant news headlines using Natural Language Toolkit (nltk) library. For each headline, relevant tweets also analyzed for public sentiment to reevaluate public sentiment.

High-Accuracy Detection of Early Parkinsons Disease through Multimodal Features and Machine Learning

Reproduction of *High-Accuracy Detection of Early Parkinsons Disease through Multimodal Features and Machine Learning* with updated database.

EDUCATIONAL

PhD in Computer Science

📅 2021 - Present

UNIVERSITY OF CENTRAL FLORIDA (UCF)

Research: **Computer Architecture**

B.Sc in Electrical and Electronic Engineering

📅 2012-2017

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)

Major in Electroics

SKILLS

Programming Language

C++, PYTHON, VERILOG, MATLAB, BASH SCRIPT

Specialized Tool

GEM5 SIMULATOR(BEGINNER)

CADENCE DESIGN SUIT

SNIPER MULTI-CORE SIMULATOR

ONLINE CERTIFICATION

Introduction to Bash Shell Scripting

PROJECT NETWORK (COURSERA)

📅 Jul 2020

Fundamentals of Parallelism on Intel Architecture

INTEL (COURSERA)

📅 Aug 2020

Unlocking Information Security

TEL AVIV UNIVERSITY (ISRAELX)

📅 Aug 2020

IT Fundamentals for Cybersecurity Specialization

IBM (COURSERA)

📅 Oct 2020

Technical Support Fundamentals

GOOGLE (COURSERA)

📅 Oct 2020

Using Python to Interact with the Operating System

GOOGLE (COURSERA)

📅 Oct 2020

WORKSHOP & TRAINING

GEM5 BOOTCAMP 2022

Organizer : UNIVERSITY OF CALIFORNIA, DAVIS 📅 5 Days

Workshop on RISC-V Technology and SiFive Tutorial

Organizer : SiFIVE INC & IEEE BANGLADESH 📅 One Days

Basic Microcontroller Course

Organizer : PLANETER LTD

📅 Two Months