

**SUMMARY:** Senior undergraduate computer engineering Student, Research Assistant, and Teaching Assistant with two-year experience in hardware and embedded system development on FPGAs and microprocessors/controllers using HDLs, low-level languages, embedded Linux, and CAD tools. I also have solid skills in software engineering and machine learning.

## EDUCATION

BS Computer Engineering | University of Arkansas | CGPA: 4.0 | May 2020

## EXPERIENCE

Teaching Assistant | Digital Design CSCE2113 | August 2019 – present

- Teaching, guiding, and assisting 30 students in two Digital Design lab sections.
- Holding office hours to help students with the class or lab material.
- Grading and correcting students' assignments and lab reports.

Research Assistant | Computer Systems Design Laboratory | February 2019 – present

- ❖ **ARray Processor Project:** implementing an array processor on a Virtex 7 Xilinx FPGA for machine learning and image processing applications.
- Designed and implemented an Instruction Sequencer Verilog Module.
- Designed and implemented four different array processor systems, each consisting of:

Controller

Processing Element (PE)

Parallel or Serial ALU

Register File

PE Block

Top-level Module

Research Assistant | Smart Embedded Systems Lab (Smart.ES) | June 2018 – January 2019

- ❖ **Arlo Project:** Helped build a System-on-Chip (SoC) on a ZyboZ7-20 Xilinx FPGA that controls an Arlo Parallax Robot, ultrasonic sensors, servo motors, a WIFI dongle, a lidar, and a camera for auto-navigation.
- ❖ **Cryptocurrency Wallet Project:** Helped develop a hardware design for a cryptocurrency wallet with AES secure encryption on Lattice FPGA boards.

Tutor | Chegg Inc. | August 2017 – present

In addition to my desire to help other students, I chose Chegg tutoring as a part-time job because it not only helps me refresh my past knowledge, but it exposes me to a wide variety of computer-related problems from all over the world. I have taught more than 30 lessons. Here is my profile on Chegg: <https://goo.gl/ZzdZ9Q>

## TECHNICAL SKILLS

C/C++

Verilog

VHDL

Java

Python

FPGAs (Xilinx, Lattice, Altera)

SoC Design

Microprocessors

Synthesis and Simulation

Static Timing Analysis

Finite State Machines

Embedded Linux

Oscilloscopes

CAD tools (Vivado, Quartus, Diamond)

Arduino

IP Core Design

Petalinux

Microcontrollers

Git

## GENERAL SKILLS

Critical Thinking

Public Speaking

Formal Writing

Microsoft Office

Problem Solving Skills

Teamwork Skills

Detail-oriented

Goal-oriented

High-level Mathematics

## ACHIEVEMENTS AND AWARDS

- Recipient of *The Charles D. Brock Scholarship* by the College of Engineering at UARK (2018).
- Recipient of *The Foundation for the International Exchange of Students Scholarship* at UARK (2018).
- Recipient of *The John and Marie Lavallard International Scholarship* at the University of Arkansas (2017).
- Recipient of *University of Arkansas Transfer Student Scholarship* (2017).
- Represented Yemen in *The Third Gulf Mathematics Olympiads* and won the Silver Medal in Oman (2014).
- Recipient of *The Top-Ten Student Ministerial Scholarship* from the Yemeni government (2013).
- Ranked the Ninth of more than 200,000 Yemeni students in *The Final High-school Ministerial Tests* (2013).

References available upon request