Sofiyan S. Monga

114 Palmer Ct. Evans, GA 30809 | (706) 589-4790 |smonga30@gatech.edu| United States Citizen

Objective

Tenacious third year computer engineer that has a passion for designing the next generation of computer hardware. Experience with creating embedded systems using FPGAs and MBED boards, and other projects using CAD and Raspberry Pi software has molded an imaginative candidate with a thorough thought process. Seeking an internship summer 2023.

Education

Georgia Institute of Technology | Atlanta, GA   *August 2022 – Present*
Bachelor of Science in Computer Engineering, GPA: None   Expected Graduation, May 2024

Kennesaw State University | Marietta, GA   *August 2020 – May 2022*
Transfer with 65 Credit Hours, GPA 3.93

Skills

Programming: Java, Python, C, C++, VHDL, Assembly (ARM and MIPS)
Platforms: Linux (Ubuntu, PiOS), Windows 10
Hardware: Raspberry Pi, ARM mBED microcontroller, FPGAs, oscilloscope
Software: Autodesk Fusion 360, Visual Studio, Vivado, IntelliJ, System Workbench for STM32, LTspice XVII, MATLAB
Professional Organizations: Technology Student Association, Science National Honor Society
Communication: Design proposals, technical reports, presentations (large and small audiences), record keeping
Languages: English (fluent), Urdu (conversational), Punjabi (conversational), Spanish (novice)

Projects

Vex Robotics | Technology Student Association   *August 2016 – May 2020*
Member
Built vex robotics with a team to compete on a state-wide level. Goal was to build a robot that could pick up foam stars and transport them to another platform.
- Devised a design for our robot
- Assembled the robot sooner than the allotted time given to stress test the robot

Hungry Viper Game | ECE 2035   *Fall 2022*
Built a Hungry Viper Snake game using Mbed hardware and C coding.
- Coded a hash table for the map
- Coded basic features before allotted time to start on advanced features

Serial Interface via VHDL | CpE 3020   *Spring 2022*
Wrote VHDL code to program serial interfacing between computer and Basys3 board.
- Created block diagrams and diagrams of state machines
- Coded incrementally and assured proper outcome with testbench code

Experience

Mobile Care | Augusta, GA   *November 2019 – January 2021*
Technician/Salesperson
- Diagnosed and repaired Electronics (Software and Hardware)
- Oversaw quality assurance of products and services
- Maintained customer satisfaction, policies, and procedures to improve overall quality of care and services

Kennesaw State University | Marietta, GA   *January 2021 – May 2022*
Front Desk Associate
- Principal IT Consultant for the Galleria Center
- Solved software related technical issues
- Directed individuals throughout the Galleria Center

Relevant Coursework

VHDL Design with FPGAs: Designed synchronous and asynchronous machines using VHDL, simulated and synthesized said designs using Vivado
Programming HW and SW: Coding C and MIPS assembly languages, implementing software into mBED hardware

Physical Foundations of CmpE: Perform speed and energy analysis of devices and circuits, derive and compute noise limits and computational power of FSM and Turing models

Programming and Problem Solving II: Code in Java in advanced topics of object-oriented programming, including static classes, inheritance and polymorphism, and file I/O

Digital Logic Design: Boolean algebra and logic simplification and implementation using standard digital IC's

Activities

Science National Honor Society | Member   *August 2016 – May 2020*
- Assisted in cleaning around the school and neighboring property
- Held and attended presentations over various topics

Technology Student Association | Member   *August 2016 – May 2020*
- Was a part of the Vex Robotics Team
- Built robots with team to compete on a state-wide level