Shaik Shaheed

Computer Engineer | VLSI & Embedded Systems Specialist | Software Developer

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**Objective:**  
Seeking to leverage my expertise in VLSI design, embedded systems, and software development to drive innovation and operational excellence in semiconductor and digital circuit development.

**Career Summary:**

# Accomplished Computer Engineer with a robust foundation in VLSI design, embedded systems, and software development. Currently pursuing a Master’s degree at San Diego State University, I have a proven track record of delivering measurable results—from a neural network-based video processing module that achieved 95% color detection accuracy to a web application that increased user engagement by 30%. Proficient in tools like Cadence Virtuoso, Verilog, and Python, I am passionate about driving innovation and enhancing system performance.

# Technical Skills:

* **Electronics & VLSI:** Analog & Digital Electronics, Microelectronics, FPGA Design,Revit, CAD Tools (Cadence Virtuoso, Design Compiler, Xilinx, Advanced Design System), Circuit Design & Simulation, Lab Equipment (Oscilloscopes, Digital Multimeters)
* **Programming & Scripting:** C, C++, Java, Verilog, VHDL, System Verilog, Python, TCL, Shell Scripting (Bash), MySQL
* **Simulation & Analysis:** CAD Tools (Cadence Virtuoso, MATLAB, Ansys, Advanced Design System, UVM)
* **Embedded Systems:** Low-level programming in C/C++, RTOS, Hardware Architectures
* **Version Control & Collaboration:** Git, GitHub, Perforce, JIRA, Jenkins, Microsoft Office
* **Web Development:** HTML, CSS, JavaScript, Angular
* **Soft Skills:** Leadership, Problem-Solving, Team Collaboration, Critical Thinking, Adaptability

# Professional Projects:

**Neural Network-Based Video Processing Block for Color Detection**

# Developed a neural network-based video processing module using Cadence Virtuoso that achieved 95% color detection accuracy.

# Utilized schematic capture, layout design, and DRC/LVS verification to ensure optimal performance and seamless hardware integration.

# Addressed design challenges by incorporating FinFET technology insights and refining FPGA implementation strategies.

# Microstrip Line Design and Analysis

# Calculated and verified characteristic impedance using HFSS and TX-Line, maintaining deviations within 5%.

# Optimized microstrip design to reduce insertion loss by 15% at frequencies up to 20 GHz, ensuring robust signal integrity.

# Design and Implementation of 16-Bit Arithmetic and Logical Unit (ALU)

* Engineered a 16-bit ALU in Verilog to efficiently perform arithmetic and logical operations.
* Conducted comprehensive simulation and testing to validate functionality, accuracy, and scalability using RTL design principles.

**Excellence Quest – Employee Performance Tracking System**

# Spearheaded the development of a responsive web application using Angular, increasing user engagement by 30%.

# Integrated performance metrics and data-driven insights that reduced project delivery time by 20%.

# Managed version control via Git and GitHub to ensure efficient collaboration and streamlined development workflows.

# Work Experience:

**Software Developer, Innova Solutions September 2023-June 2024**

* Led UI/UX design initiatives and Angular-based application development, delivering scalable and user-centric solutions.
* Coordinated project tasks and mentored junior developers, significantly enhancing team productivity.
* Implemented process improvements that optimized development cycles and bolstered operational efficiency.

# Coursework:

VLSI Testing, VLSI Circuit Design, Cyber Physical System, Analog Integrated Circuit

# Education:

**Master of Science in Computer Engineering August 2024-December 2026**

San Diego State University, California

# Bachelor of Technology in Electronics and Communication Engineering August 2019-July 2023

Vidya Jyothi Institute of Technology, Hyderabad, India **GPA:8.59/10.00**