SRIMOL K S

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PROFILE

Skilled in Verilog, C, Cadence Virtuoso, and ModelSim, with hands-on experience in data compression, AI-driven edge devices, and IoT projects. Internship at Tessolve provided exposure to industrial automation and communication protocols.Certified in AI and MATLAB, with achievements including an Assistant Researcher offer at NIT Sikkim and recognition at Project Expo 2023.

EDUCATION

Amrita Vishwa Vidyapeetham, Kollam June2024-July 2026
M. Tech in VLSI Design SGPA 8.76

Rajagiri School of Engineering and Technology June2019-July 2023
B. Tech in Electronics and Communication Engineering CGPA 7.52

Senior Secondary Education at GHSS Thanniam July 2017- April 2019
Bio-Math Stream percent 89

SKILLS

Programming Skills

C, Verilog

Technical skills

Altium Designer, Cadence Virtuoso,Jetson Nano board,FPGA design flow using Xilinx Vivado,Modelsim RTL Simulator

INTERNSHIP

Tessolve

Embedded IOT & Industrial Automation Jan 2021-Jun 2021

- Gained knowledge on development boards such as STM32, integrating hardware and software systems.
- Worked with communication protocols, including UART and I2C to enable seamless device communication.

PROJECTS

Comparison of Huffman and Canonical Huffman coding Sept 2024

- Designed and implemented Huffman and Canonical Huffman coding in Verilog for data compression applications.
- Conducted a detailed comparison of power consumption and hardware area, demonstrating that Canonical Huffman coding achieves superior performance.

- Optimized the design for FPGA implementation, ensuring efficient utilization of hardware resources and scalability for larger datasets.

Implementation of Leaf Disease Detection on Edge Device Oct 2023

- Conducted comparative analysis of SoCs and Arduino Nano 33 BLE for inference time, power efficiency, and accuracy across AI models.
- Identifying Google Coral Dev Board as the most efficient for continuous AI tasks and Jetson Nano for flexible, occasional computations.

SMS-Based Fire Alarm and Detection System Sept 2022

- Developed a smoke detection system with buzzer and SMS alerts, integrated with an automatic sprinkler for fire suppression in residential and industrial settings.

Energy-Efficient Home Automation System May 2020

- Designed a home automation system using Raspberry Pi and Zigbee protocol.
- Programmed control logic to manage appliances remotely via a smartphone application.

CERTIFICATIONS

Introduction to Machine Learning (ML) An online non-credit course authorized by IBM and offered through Coursera

Verilog HDL: VLSI Hardware Design Comprehensive Masterclass by UDEMY Altium Education

PCB Basic Design Course

ACHIEVEMENTS

- Received an offer to join as an Assistant Researcher at NIT Sikkim, showcasing strong academic and technical capabilities.
- Secured the Consolation Prize in the Project Expo 2023 organized by Electronauts for an innovative project demonstration.
- Successfully organized the Cultural Fest 2022, demonstrating leadership, planning, and event management.