HARI SAI KUMAR THATHOLU

Address : 13-2-51, Rangamannar Peta, Palakol, W.G. Dist., A.P – 534260.
Tel : +91 9491147433 | **Email :** harisaikumar06@gmail.com
LinkedIn : www.linkedin.com/in/harisaithatholu | **Git Hub :** github.com/Hari-r31

Carrier Objective :

Seeking a position that utilizes my technical and interpersonal skills, provides opportunities for professional growth, and contributes positively to the organization. Committed to continuous learning and excelling in a collaborative team environment. My passion for technology and ability to adapt make me a perfect fit for your dynamic development team.

Skills :

- Application Development: Python, Web Development, SQL.
- Programming Languages: C, Python.
- Operating Systems: Windows, Linux.
- Tools: MS Office, Adobe Photoshop.
- Robotics: RPA Development, Automation.
- Embedded Systems: Embedded Programming, Sensors & Actuators Initialisation, Cloud Integration.
- Hardware: Arduino family, ESP32 family, STM 32, Lora.
- Cyber Security: Vulnerability Testing, Network Security.

Education :

B.Tech. in Electronics & Communication Engineering ***2021 - 2024***
Visakha Institute of Engineering & Technology, Visakhapatnam CGPA: 7.76/10

Diploma in Electronics & Communication Engineering ***2018 - 2021***
Sir C.V. Raman Polytechnic College, Palakol, 89.26%

Secondary Education ***2017 - 2018***
Montessori E.M High School, Palakol, CGPA: 9.50/10

Internships :

VLSI Analog Layout Design ***Dec 2023 - April 2024***

- Designed and implemented analog frontend with input stage, filter stage, and amplifier stage.
- Integrated analog-to-digital converter (ADC) with successive approximation register (SAR) architecture.
- Developed digital backend with microcontroller unit (MCU), memory interface, and peripherals.
- Utilized power management techniques with voltage regulators, power-on reset (POR) circuitry, and clock generation.
- Implemented floor planning, signal integrity, power distribution, and thermal management techniques for optimal layout design.
- Used Cadence Virtuoso for schematic capture and layout design, Cadence Spectre for circuit simulation and verification, and Cadence Assura for physical verification and design rule checking (DRC).

Embedded Intern, HMI Solutions ***July 2023 - Sep 2023***

- Designed and implemented IoT devices using microcontrollers like Arduino, ESP32, and Raspberry Pi.
- Integrated multiple sensors to ensure accurate data acquisition for various applications.
- Developed solutions for integrating IoT devices with cloud platforms for real-time data storage, analysis, and remote monitoring.
- Utilized communication protocols such as I2C, SPI, UART, and MQTT for efficient data transfer between devices.

Cyber Security Analyst, IBM Skills Build Program ***June 2023 - July 2023***

- Identifying system weaknesses and assessing associated risks.
- Reacting swiftly to security breaches, containing them, and minimizing damage.
- Vigilantly watching networks and systems for signs of potential threats.
- Developing and enforcing security policies to meet industry standards and regulations.

Robotics Engineer Intern, Blue Prism - Edu Skills ***Sep 2022 - Nov 2022***

- Creating automation solutions to streamline workflows.
- Identifying tasks suitable for automation and optimizing processes.
- Designing efficient automation workflows.
- Configuring software robots to execute tasks accurately.
- Ensuring the reliability and effectiveness of automation scripts through rigorous testing and debugging.

Projects :

IoT Based Fish Pond Monitoring & it's Production Enhancement System ***Jan 2024 - May 2024***

- Uses sensors to monitor water temperature, pH, dissolved oxygen, turbidity, and ammonia levels.
- Utilizes Blynk for real-time remote monitoring, ThingSpeak for data logging and analysis, and Twilio for SMS alerts.
- Allows users to monitor via Blynk, receive SMS alerts, and adjust motor functions (aerators, feeders, water pumps) as needed.
- Enhances aquaculture productivity, sustainability, and profitability by improving fish health and optimizing resource management.

Node MCU Based Mobile Controlled Car Through WIFI ***Feb 2023 - Mar 2023***

- Constructed the car using Node MCU and L298N Motor Driver, ensuring integration for functionality.
- Programmed Node MCU for Wi-Fi connectivity, facilitating remote control of the car via a mobile.
- Developed a user-friendly Website for controlling the car effortlessly, improving user interaction.
- Implemented algorithms to accurately interpret commands from the Website/Mobile App, ensuring precise motor control for smooth operation.

LED Display Board Using ESP8266 ***Sep 2022 – Oct 2022***

- Integrated ESP8266 microcontroller with LED display modules to create a versatile IoT platform.
- Developed firmware to enable wireless communication and control of the LED display.
- Implemented scrolling algorithms to display dynamic information such as text messages, notifications, and updates.
- Designed a web-based interface for remote management and configuration of the display board.
- Conducted testing and optimization to ensure seamless operation and reliability of the system.

Communication Using Li-Fi During Travelling ***Aug 2020 - Nov 2020***

- Installed Li-Fi transmitters and receivers in prototype vehicle to facilitate communication.
- Developed a communication protocol optimized for Li-Fi technology to ensure reliable data transmission.
- Integrated the Li-Fi system with prototype to enable seamless operation.
-Implemented safety features such as real-time data exchange for accident prevention and traffic management.

Detecting Harmful Gases On Road (IoT) ***Jan 2020 - April* 2020**

- Implemented an IoT solution for detecting harmful gases on roads.
- Aimed to aid in environmental monitoring efforts.
- Utilized sensor technology to detect and monitor levels of harmful gases in real-time.
- The system potentially contributes to early detection and mitigation of air pollution hazards.

Publications :

- **Monitoring of Fish Pond Based on IoT & Its Enhanced Production System**
  INTERNATIONAL JOURNAL OF ALL RESEARCH EDUCATION & SCIENTIFIC METHODS (IJARESM), an ISO & UGC Certified Peer-Reviewed/Refereed Journal. IJARESM has an Impact Factor of 8.536. The paper appears in Volume 12, Issue 6, dated June 2024. The author, Thatholu Hari Sai Kumar, is a B.Tech student in the Department of ECE at Visakha Institute of Engineering and Technology in Visakhapatnam, India. The publication is identified with Certificate Id IJ-0806240217 and was issued on 08-06-2024.

- **Study of Stacked High-k Gate-All-Around FET**
  INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN COMPUTER AND COMMUNICATION ENGINEERING is a monthly peer-reviewed journal with an Impact Factor of 8.102. It is indexed by Google Scholar, and Mendeley, and is accredited by NAAS. The journal is ISO 3297:2007 Certified and has a Thomson Reuters ID I-8645-2017. Thatholu Hari Sai Kumar, a B.Tech student from the Department of ECE at Visakha Institute of Engineering and Technology in Visakhapatnam, India, published a paper titled "Study of Stacked High-k Gate-All-Around FET" in Volume 12, Issue 7, July 2023. The paper has a DOI: 10.17148/IJARCCE.2023.12703, and the certificate number is IJARCCE/2023/1.

Certifications :

- Achieved JobReady Employability Skills certification from the Wadhwani Foundation through Skill APSSDC (Andhra Pradesh State Skill Development Corporation) in April 2024.
- Successfully completed Python 101 for Data Science (PY0101EN) provided by IBM on cognitiveclass.ai. Certificate ID Number: 025495e1c317494782528f661de4d025, issued on March 14, 2023.

Extra-Curricular Activities :

- Actively participated in the National Service Scheme, volunteering at local community centres to organize educational workshops and events aimed at community development and social welfare.
- Acted as a mentor for junior students, providing guidance and support in their academic and personal development.
- As Student Council Coordinator, I organized ECE Mad Fest, a yearly event featuring technical workshops, cultural performances, and interactive activities for student engagement.
- Participated in Poly Tech Fest on Automation of Agriculture Motor Pumps Using a Mobile.
- Got 1st prize for the paper presentation on banning alcohol, at the diploma level.