HEMANTH KUMAR D M

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Experienced engineer with a strong background in embedded systems and the Internet of Things, as well as knowledge of several programming languages such as Python and Java. Skilled in database management, data analysis, and online and app development. Additionally, fluent in circuit fabrication, Verilog, microcontroller programming, and PCB design. Committed to providing complete solutions that seamlessly integrate software and hardware components to meet a variety of organizational demands. Certified with industry-oriented projects, including Python courses focusing real-world applications like facial recognition and number plate recognition using OpenCV (cv2). Further IIT Bombay certificates in Data Analysis, AI Tools, Machine Learning, Image Processing, and Computer Vision, each backed by two industry-relevant projects, demonstrate a practical understanding of modern technologies. VLSI Cadence Certificates demonstrate skills in hardware design and verification, boosting the ability to contribute effectively to projects and teams.

STRENGTHS AND EXPERTISE

- Problem-Solving Skills
- Project Management
- Quality Assurance and Testing
- Programming Languages (python, java)
- Web Development
- Machine Learning and Artificial Intelligence
- VLSI Design and Verification
- Circuit Design and PCB Layout
- Adaptability to New Technologies

WORK EXPERIENCE

Schneider Electric **Oct 2019 – Sep 2020**
Production and Testing

As a Production and Testing Engineer at Schneider Electric, I was responsible for ensuring that our production processes ran efficiently and with high quality. Over the course of a year, I gained great expertise and made important contributions to the production department's success.

INTERNSHIP

ABB India **Oct 2023 – Nov 2023**
Automation

During my internship at ABB India, I was a member of the Automation team, where I played an important role in automating data collecting from machines. My primary focus was on designing methods for calculating man and machine runtimes and analyzing manufacturing process outcomes. By automating these procedures, I greatly decreased staff' workload and data acquisition times.

EDUCATION

Acharya Institute of Technology
Bachelor of engineering(B.E) **7.2 CGPA**
Electronics and Communication(ECE) **2024 - present**

Sri Venkateshwara Polytechnic
Diploma - Electronics and Communication **70.16%**
Board of Technical Education **May 2016 - July2021**

Sri Maruthi Vidya Mandira
Secondary School **74.32A**

PROJECTS

Automated Spikes for Traffic Signal Domain: Embedded system & IoT
- Interface between the various sensors and arduino Uno makes the body of the project which detects the traffic signal and perform the various actions.

Smart Helmet
Domain: Embedded System & IoT
- Helmet controlled Ignition System, based on the behaviour of the driver the communication with various sensors like alcohol detection and touch sensor ignition can be controlled ON and OFF.

Smart Home
Domain: Embedded System & IoT
- Controlling the Various appliances in home using mobile application and Various Sensors implemented.

Quantum Computing (Image Comparator)
Domain: VLSI
- By creating Quantum Circuit of comparator to compare the 2 different images like binary images, grey images, and colour images.

3D Rendering
Domain: 3D art, Blender, Unity Engine - Rendered and 3D images

WebApplication Development (WebSecure) Domain: Software (WebApplication Development)
- Created an web application namely WebSecure for Cyber Security automation to Detect phishers and enhance the Internet security.

Automatic Resume Checker Project Domain: AI toolsI
- Designed and developed an algorithm that takes advantage of the OpenAI API's features. This algorithm was designed to compare resumes to job descriptions, resulting in a detailed assessment of candidate suitableness for specific tasks.

Breast Cancer Prediction Project Domain: Data Analyst
- Created an algorithm in Python using machine learning tools like Keras and scikit-learn. This system was designed only to predict breast cancer using CSV data, using the capability of machine learning techniques for accurate classification.

Face Recognition Using Machine Learning Domain: Machine Learning and image processing
- designed and developed an algorithm that takes advantage of the OpenAI API's features. This algorithm was designed to compare resumes to job descriptions, resulting in a detailed assessment of candidate suitableness for specific tasks.

FINAL YEAR PROJECT

FARMEASY (Leaf Disease Detection, Irrigation Control and Recommendation System)

- Developed a comprehensive mobile application for the agriculture industry, integrating professional advice, automated irrigation control, and real-time leaf disease detection. Utilized YOLOv9 for precise disease detection, NodeMCU, and various sensors for efficient irrigation management..

Team Size - 3
Role : App Development, Circuit Building, OpenCV
Outcomes: Secured a grant of 2.5 lakh from BIRAC-EYUVA
Received a stipend of 7.5k per month for 1 year
Enhanced farming production and sustainability through optimized resource use and informed decision-making

SKILLS

Technical: Fundamentals/basics: Embedded C, Verilog, SQL
Intermediate: Python , Embedded system & IOT, JAVA, Web Development, Application Development, UNIX
Tools: Keil Microvision, Cadence, Xilinx ISE design, Arduino IDE, MATLAB, PyCharm, Android studio code, (Flutter),
Hardware: Arduino UNO , Raspberry Pi.

CERTIFICATIONS

Embedded system and IOT (Raspberry Pi)
Acharya Institute of Technology
Internal Smart India Hackathon - 2023
Acharya Institute of Technology
Hackathon – MET-A-FOUR
Acharya Institute of Technology
Analog and Digital Circuit Design Contest
Acharya Institute of Technology
Basics of Python Programming
Infosys Spring Board
AI tools (Resume Checker)
IIT Bombay
Data Analyst (Breast Cancer)
IIT Bombay
Machine Learning Image Processing and Computer Vision (Facial Recognition, Gesture Recognition)
IIT Bombay
Kavach 2023
Acharya Institute of Technology

LANGUAGES

Telugu (Mother Tongue)
Kannada (Communicate, read, write)
English (Communicate, read, write)
Hindi (Communicate, read, write)

INTERESTS

Research and Development
Learning new languages
Gaming (e.g., video games, board games)
Sports and fitness activities
Participating in hackathons or coding competitions
Keeping up-to-date with AI tools
Attending industry conferences and workshops

DECLARATION

I hereby declare that the information furnished above is true to the best of my knowledge. I do hereby declare that above particulars of information and facts started are true, correct and complete to the best of my knowledge.