



Akshayan Sinha

Edge IoT Engineer

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India

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WORK EXPERIENCE

ZenatixBySchneiderElectric — IoT Engineer - Edge

SEPTEMBER 2024 - PRESENT

- Develop and optimize device drivers for Modbus, BACnet, and LoRaWAN on Linux gateways.
- Build edge software for real-time data transmission from IoT devices to the cloud.
- Manage read/write operations on gateways and ensured smooth communication between sensors and controllers.
- Enhance software dashboards for energy management system monitoring and control.
- Prioritize and resolved field bugs, driving efforts to reduce ticket volumes and improve system stability.
- Proficient in Edge Computing, optimizing communication and performance for IoT solutions.

Staqo World (Sheela Foam) — Software Engineer - Robotics

AUGUST 2023 - AUGUST 2024

- Contributed to the development of image processing features on the real-time feed of monitoring cameras
- Implementing SLAM and Navigation stack for Mobile Robot within Indoor Environment
- Architect Embedded Linux firmware for devices like Facial Attendance Machine & ROS Control Board
- Used ROS Bridge to develop a Web HMI for a mobile robot
- Developed voice assistant powered with AWS Polly and GPT Assistant to interact with customers.
- Proficient with Edge Computing and Automation on Single Board Computer.

INTERNSHIP

LG Electronics, Greater Noida — QA Trainee

AUGUST 2022 - JULY 2023

Rancho Labs, New Delhi — Robotics and IoT Instructor

FEB 2022 - MAY 2022

SKILLS

Programming

Python, C++, XML, Javascript,
Bash, HTML, CSS

Software

Arduino IDE, ROS, RViz, OpenCV,
Linux Distro

Hardware Board

Arduino UNO, ESP32 (major
brands), STM32 Nucleo,
Raspberry Pi, Nvidia Jetson
Nano, Embedded Linux on SBCs

Robotics

Path Planning, Mapping, Map
Marking, Localization, Arm
Manipulation, 2D Perception,
Forward and Inverse Kinematics

PORTFOLIO LINKS

Website

akshayansinha.com/

Hardware Projects

hackster.io/akshayansinha

LinkedIn

linkedin.com/in/akshayansinha

Github

github.com/hippyaki/

LANGUAGES

English, Hindi, Bengali,
Assamese

EDUCATION

Lovely Professional University, Punjab — *B.Tech ECE*

JULY 2019 - JULY 2023

Grade - 7.89

South Point School, Guwahati — *12th Standard*

APRIL 2018 - JULY 2019

Grade - 7.3

PROJECTS

Autonomous Mobile Robot based on SLAM

Designed and Developed a 4 Differential drive with mecanum wheels, using LiDAR, Wheel Odometry, IMU, and Google Cartographer for SLAM. Designed an admin Web HMI to navigate a map with dynamic buttons for coordinates.

HealthConnect — *healthconnect.thryvetech.in*

IoT and AI based Patient Monitoring system. Enabled for wearables, and Medical sensors, with data access on Cloud. Featured with AI SymptomChatBOT, Dashboard to view LIVE patient data, schedules, and prescriptions.

Cloud-Controlled IoT Car

Control a 2-wheel Car with a WebApp from anywhere in the world. Also featured with Local mode. With a single flick of a switch, ESP32-based IoT Car can be controlled from Cloud and Locally as well.

IoT Platform Guide Map

Briefly documented Instruction article to use Online IoT Application Platforms with ESP32 Dev Board. Monitor and Control Edge devices on multiple platforms including AWS-IoT & Google Firebase

RF/WiFi/BLE Controlled Vehicle

Unmanned vehicle using 2,4GHz RX-TX(fs-i6s), openTX (ELRS), WiFi & BLE using ESP32 Dev Board

IoT Automation

Multiple projects created and well-documented, like - Contactless Doorbell, Mask Detection System, MailBox Alert and AI Bird Feeder for hygiene and healthy people and animals. Featured with IoT Alert to notify users with details of every situation.

