Atharva Jitendra Deshmukh

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EDUCATION

Institute of Technical Education and Research, Bhubaneswar

2022-2026(Pursuing)

Bachelors of Technology (B.Tech) in Computer Science and Engineering, CGPA(till 5th Sem)- 8.71

Baldwin Farm Area High School, Jamshedpur

2021-2022

AISSCE, New Delhi, Pure Science with Computer Science, Aggregate - 86.6%

Baldwin Farm Area High School, Jamshedpur

2018-2019

AISSE, New Delhi, Aggregate – 89%

EXPERIENCE

Teezash Technologies | Full Stack IoT Intern

March 2025 -Present

- Developed a real-time IoT gas detection system using **ESP32**, **MQTT**, and **AWS IoT Core** with secure onboarding via Fleet Provisioning by Claim and remote management through **AWS IoT Fleet Manager**.
- Integrated AWS services including **Device Shadow**, **Lambda**, **DynamoDB**, and **SNS** for state synchronization and event-driven alerts, while enabling real-time monitoring through **Telegraf**, **InfluxDB**, and **Grafana**.
- Implemented a cloud analytics pipeline using AWS Glue, S3, Athena, and QuickSight for time-series data cataloging, SQL-based querying, and interactive dashboard for real time insights.

AshXpert | IoT Intern

January 2025 - March 2025

- Developed an IoT-based intelligent traffic monitoring system using ESP32, integrated with CCTV, tyre killers.
- Implemented MQTT-based communication for secure, lightweight data transmission between IoT nodes and the cloud backend, facilitating remote monitoring, system diagnostics, and automated fine issuance. PROJECTS

ANGIOSENSE (INNOWAVE 2.0 Winner)

January 2025

- Developed a non-invasive, cost-effective alternative to angiography using Bioimpedance and PPG principles, integrating IoT to enhance cardiovascular diagnostics and minimize risks associated with radiation exposure.
- Implemented advanced signal processing algorithms in Python for accurate Bioimpedance and PPG data analysis, ensuring reliable and precise diagnostic results.

ALERTIFY (RTOS, AWS IoT Core, Espressif IDF 5.0)

November 2023

- Built an IoT device for real-time earthquake detection using ESP32, FreeRTOS, and AWS IoT Core with Espressif IDF
- Integrated ground activity sensors to trigger automated evacuation alerts and managed tasks via FreeRTOS for reliable real-time operation.

CRIME VISION (Rajasthan Police Hackathon Finalist) | Deep Learning, Open-CV

February 2024

- Developed a CCTV-based surveillance system using AI-powered suspicious activity detection and human face recognition.
- Used OpenCV for real-time object detection, motion tracking, and facial recognition to enhance threat identification accuracy.

RESCON (NIRMAN 3.0 1st Runner Up) | LoRa-WAN, MQTT, GPS Module

April 2024

- Engineered a GPS-based rescue device for mountaineers and high-altitude personnel, delivering real-time distress alerts over LoRa-WAN and MQTT.
- Implemented long-range, low-power communication between device and base station using the LoRa-WAN protocol, suitable for trekkers and military operations in high-altitude environments.

SKILLS SET

- **Programming/Frameworks:** C, C++, Open-CV, Python.
- Specialization: Real Time Operating System (RTOS), AWS IoT Core, Sensor Integration.
- Platform knowledge: Amazon Web Services (AWS), ESP-IDF, InfluxDB, Grafana, Telegraf, Arduino IDE, VS Code, PlatformIO, Jira, Confluence, Github.
- Core Knowledge: Computer Networks, Operating System, Databases, Compiler Design, OOPS.
- Soft Skills: Sprint Learner, Effective Communicator, Analytical Thinking, Teamwork.
- Languages: English (Fluent), Marathi (Native), Hindi (Fluent).

ACHIEVEMENTS

- METASOFT 2024 2nd International Conference (Winner 1st Prize): Conference on Metaheuristics in Engineering and its Applications organized by the Department of Computer Application, Siksha 'O' Anusandhan University.
- TRITHON (Winner 1st Prize): 24-hour Hackathon organized by Trident Group.
- SYNCHRONIZE 2.0 (1st Runner Up): 12-hour Hackathon organized by XIM University, Bhubaneswar.
- E-Summit B-Plan (Winner 1st Prize): A business pitch competition organized by IIT Bhubaneshwar.
- NIRMAN 3.0 (1st Runner Up): Ideathon prototype presentation organized by Silicon University, Bhubaneswar.
- NIRMAN 3.0 (2nd Runner Up): 12-hour Hackathon organized by Silicon University, Bhubaneswar.
- E-Summit Hackathon (2nd Runner Up): 24-hour Hackathon organized by ITER, SOA University.
- E-Summit Ideathon (Special recognition for Product Prototype): Ideathon organized by ITER, SOA University.
- GGV IDEATHON 2024 (1st Runner Up): A National level Ideathon organized by GGV Bilaspur, Chhattisgarh.
- UTKARSH ODISHA: Presented at UTKARSH ODISHA make in Odisha Conclave'25.