europass

Shriya Sinha

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LinkedIn: https://www.linkedin.com/in/shriya-sinha1533/

GitHub: https://github.com/Shriya1503

Gender: Female **Date of birth:** 15/03/2003 **Nationality:** Indian

WORK EXPERIENCE

Agrihawk Technologies Private Limited (Fyllo)

City: Bengaluru | **Country:** India

[08/07/2025 – Current] **Embedded system designer**

Full-Time

Project- **Real-time spore Identification System**

- **Hardware Design:** Designed custom carrier boards (RPi CM + ESP32) and optimized power algorithms, increasing battery life by 700%.
- **Optical Engineering:** Engineered a custom microscopic optical assembly with specialized lensing and illumination for high-resolution spore detection.
- **Firmware & Connectivity:** Developed fail-safe Embedded C & Python firmware and integrated LTE modems for reliable 4G telemetry.
- **IP & Documentation:** Authored technical documentation and drafted the patent application for the system's bio-monitoring methodology.

Agrihawk Technologies Private Limited (Fyllo)

City: Bengaluru | **Country:** India

[08/01/2025 – 07/07/2025] **IoT Intern**

Paid Internship

- **Prototyped the "Realtime Spore Identification System,"** integrating high-resolution cameras and environmental sensors with a Raspberry Pi for real-time fungal pathogen detection in agricultural fields.
- **Engineered Python automation** for synchronized image capture and autofocus, collaborating with agronomists to optimize microscopic imaging and build the foundational validation dataset.

UGC DAE Consortium for Scientific Research, Indore

City: Indore | **Country:** India

Links https://github.com/Shriya1503/Smart-Home-Monitoring-System | https://drive.google.com/file/d/1WX7qyZjexken98f7sVp8gzMhIX1PKMXH/view?usp=drivesdk

[21/08/2023 – 21/11/2023] **IoT Intern**

- **Architected a decentralized IoT network** using ESP32/Raspberry Pi and MQTT, building a full telemetry pipeline with Node-RED, InfluxDB, and Grafana for real-time visualization.
- **Integrated RFID/PIR sensors** using interrupt-based C++ firmware and developed a custom Android app for real-time device control and security alerts.

EDUCATION AND TRAINING

[08/09/2021 – 30/04/2025] **Bachelor of Technology in Electronics and Computer Engineering**

Vellore Institute of Technology, Chennai https://chennai.vit.ac.in/

City: Chennai | **Country:** India | **Field(s) of study:** Engineering, manufacturing and construction | **Final grade:** 8.91/10 | **Level in EQF:** EQF level 6

Relevant Coursework: Embedded Systems, Microcontrollers, FPGA/VLSI, DSP, Computer Vision, OS, Data Structures, and Applied Mathematics (Linear Algebra, Probability).

Societies: Electrical Team Member at *Technocrates Robotics* (Rover Division), focusing on hardware integration and rover electronics.

[16/03/2020 – 30/04/2021]

Indian School Certificate (Class XII)

Laurels School International, Indore

City: Indore | **Country:** India | | **Level in EQF:** EQF level 4

- **Stream:** Science
- **Subjects:** Physics, Chemistry, Mathematics, English, Computer Science.
- **Achievement:** Secured **92.6%** overall, with **100/100** in Computer Science. **Ranked as Indore City Topper** in the ISC Science stream for the academic year 2020-2021.

SKILLS

Programming

Embedded C | C++ | C | Python | MATLAB | Linux Shell | Verilog RTL Coding

Embedded Platforms

Raspberry Pi (ARM Cortex-A) | ESP32 | Arduino | STM32 Nucleo

IoT Stack

MQTT | HTTP | InfluxDB | Node-Red | Grafana

Hardware Interfaces

I2C | SPI | UART | LTE Modems

Tools

GitHub | KiCAD | Edge Impulse

PROJECTS

[01/11/2025 – 30/11/2025]

AI Water Classifier

- Engineered a TinyML water quality classifier (Safe/Tap/Unsafe) on Seeed XIAO nRF52840, achieving 94.5% accuracy (HackerEarth Edge Impulse Hackathon 2025).
- Implemented Time-Division Multiplexing firmware to eliminate sensor cross-talk and deployed a quantized Edge Impulse model for reliable offline inference.

Links: https://github.com/Shriya1503/AI-Water-Classifier | https://youtu.be/40XXZL1Khtl?si=lHx8mocMnkwHCQuq | https://drive.google.com/file/d/1G4yGbYogGyfyAvVERFJtNglQ2lx0rUrd/view?usp=drivesdk

[04/2024 – 05/2024]

Mars Rover: Voltage Divider Board

Designed a custom power distribution PCB to regulate 24V LiPo input into stable 5V (ESP32), 12V (encoders/fans), and filtered 24V (motors) rails using buck converters.

Link: https://github.com/Shriya1503/VoltageTransferBoard

CERTIFICATIONS

[EDX, 05/01/2026]

ESE102:Embedded Systems Essentials with Arm: Get Practical with Hardware

Mode of learning: Online

Link: https://drive.google.com/file/d/1ix8n4e-__x-j7A6BM9VqecqzKrEliTat/view?usp=drivesdk

[EDX, 11/10/2025]

ESE101:Embedded Systems Essentials with Arm:Getting Started

Mode of learning: Online

Link: https://drive.google.com/file/d/1A2aERRvdOKlZJ6IVyImYMl1rZVFXIFTI/view?usp=drivesdk

[Coursera, 26/01/2025]

Edge Impulse: Introduction to Embedded Machine Learning

Mode of learning: Online

Link: https://www.coursera.org/account/accomplishments/verify/1DG3R0GJQQRE?utm_source%3Dandroid%26utm_medium%3Dcertificate%26utm_content%3Dcert_image%26utm_campaign%3Dsharing_cta%26utm_product%3Dcourse

[Maven Silicon, 02/08/2024]

VLSI Design Internship Program

Mode of learning: Project based

Link: https://drive.google.com/file/d/1eo2kN5_d3hx61rq-om0GjvDPoLU4Ri1F/view?usp=drivesdk

[NPTEL, 11/2023] **Introduction to Industry 4.0 and Industrial Internet of Things**

Mode of learning: Blended

Link: https://drive.google.com/file/d/11DLRgOwUHx1aTFLGZ_-IbVlfIJyL6Qy1/view

[NPTEL, 04/2023] **Robotics and Control: Theory and Practice**

Mode of learning: Blended

Link: https://drive.google.com/file/d/1SbuzC6AztKQB9FaP3YqrPckoMdy-mphZ/view

PUBLICATIONS

[2025] **IEEE International Conference on Communication & Smart Devices (ICCoSD) (In Press)**

Reference: Multi-Class Traffic Flow Prediction with Machine Learning for Urban Planning Applications

- Evaluated six machine learning algorithms (including XGBoost and Random Forest) on time-series data to predict multi-class vehicle flow with **99.8%** accuracy.

Authors: Yash Sarda, Shriya Sinha, Shubham Sharma, Payal Saini, Suhani Garg, Ashis Tripathy

Link: https://drive.google.com/file/d/1sDQT7vRblVF_eEBx-1cpOC2wXGyRDqjV/view?usp=drivesdk

LANGUAGE SKILLS

Mother tongue(s): Hindi

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

German

LISTENING A1 **READING** A1 **WRITING** A1

SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user