Harshit Mishra

Bachelor of Technology
in Information Technology (IT)
Indian Institute of Information Technology Una,

+91-9651908428
22323@iiitu.ac.in
GitHub
LinkedIn

EDUCATION

Degree	Institute	Board / University	CGPA/Percentage	Year
B.Tech IT	Indian Institute of Information Technology Una	IIIT Una	8.35 (till $4^{th}sem$)	2022-2026
Senior Secondary	Tiny Tots Public School	CBSE	85.2%	2022
Matriculation	Stella Maris Convent School	CBSE	95.2%	2020

PATENTS

- **RFID-Based Weapon Detection and Friend-or-Foe Identification System** *Jan 2025 – Apr 2025*
  Prototype Development
  – Developed RFID-enabled system to detect weapon-carrying individuals and classify them as friendly or hostile, enhancing situational awareness in military zones.

- **Face Mask with Integrated Sensors for Bruxism Detection** *May 2025 – July 2025*
  Provisional Patent
  – Filed patent for wearable sleep mask detecting **sleep bruxism**, a prevalent sleep disorder affecting 20% of adults, following rigorous prototype testing and refinement.

EXPERIENCE

- **Maker Bhavan Foundation (IITGN)** *May 2025 - July 2025*
  Research and Development Intern

  – Selected as one of **60 students across India** for a prestigious national-level innovation program.
  – Developed a **smart wearable mask** in a **team of 3** to detect and monitor **Sleep Bruxism** using biosensors.
  – Honored with the **Special Jury Award** of 50000 for outstanding innovation and technical execution.

PROJECTS

- **Parking Lot Aggregator (FASTag based)**   (Live Link)   (Demonstration Video)   *GitHub*
  Optimizing Urban Parking Spaces for Efficient City Mobility Using RFID(FASTag) Technology

  – Built a comprehensive parking lot aggregator platform with **2 different client and business sites** separately using the **MERN stack**, integrating **IoT (RFID)** for automated entry and exit.
  – Designed architecture with **minimal hardware** cost (Rs 20,000), using **ESP32** for **RFID (FASTag)**-based entry and exit.
  – Implemented **real-time updates** with **Redis** and **Socket.io**, enhancing the user experience with a dynamic dashboard and reduced API response time by **80%**.
  – Implemented 3 booking types—**hour-wise**, **date-wise**, and **walk-in**—with real-time updates via **NodeMailer**.
  – Integrated **Stripe** as the payment gateway and **Mapbox API** for interactive maps of parking lots.
  – Included more then 9 **edge-case handling** and deployed the application on **AWS** with **Nginx** for optimized server management.

- **OSint SaaS Platform**   (Live Link)   (Demonstration Video)   *GitHub*
  Efficient Open-Source Intelligence Gathering with 4 Integrated APIs

  – Programmed a comprehensive **OSint SaaS platform** using **MERN**, enabling efficient open-source intelligence gathering.
  – Integrated **4 APIs** for OSINT services—including **phone/email validation, social media retrieval, and reverse image search** with secure **Stripe** payment processing for a **pay-per-search** model and user balance tracking.
  – Deployed the application on **AWS** with **Nginx** for optimized server management.

- **Automatic PC Cooling Pad Adapter**   *GitHub*
  Optimized cooling solution for laptops based on CPU usage using Python and Arduino

  – Developed an automatic cooling pad adapter that activates based on CPU usage, using **Python driver** and **Arduino Uno** for efficient power management.
  – Utilized 2 libraries **Psutil** and **Serial** in the **Driver** to monitor and transmit CPU usage data to the cooling pad system.
  – Designed an adapter that transforms regular cooling pads into smart ones, enhancing efficiency by up to **62%**.

TECHNICAL SKILLS

- **Programming Languages**: C, C++, JavaScript
- **Web Development Stack**: HTML, CSS, JavaScript, MongoDB, Node.js, Redis
- **Tools**: Git & GitHub, SQL, AWS, Nginx

KEY COURSES TAKEN

- **Computer Science & Mathematics**: Introduction to C, Computer Networks, Object-Oriented Programming in C++, Data Structures and Algorithms, Operating Systems, Database Management Systems