

# SAYANTAN SAHOO

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## PROFILE SUMMARY

Curious and results-driven Computer Science Engineer passionate about AI, Data Science, and Cybersecurity. Experienced in full-stack development and secure system design, with hands-on work in AI-driven solutions, backend services, and threat detection systems. Thrives on solving real-world problems through innovation, data, and automation with a focus on building scalable and secure applications.

## EDUCATION

B.Tech in Computer Science and Engineering

University Institute of Technology, The Burdwan University (2024 - Present)

BS in Data Science and Applications

Indian Institute of Technology, Madras (Online Program) (2025 - Present)

## TECHNICAL SKILLS

Languages: Python, Java, C/C++, Node.js

Web Development: HTML, Bootstrap, Tailwind

Databases: PostgreSQL

Data Science & AI: NumPy, Pandas, Matplotlib, SciPy, Machine Learning, NLP, Voice Cloning

Cybersecurity: Ethical Hacking, Google Dorking, Honeypot Systems, Network Diagnostics

Frameworks & Tools: DevOps, Hydra, Recon Tools, REST APIs

## INTERNSHIP EXPERIENCE

### Software Development Intern – Techplement

Built and optimized REST APIs for backend systems, improving response efficiency by 20%. Contributed to codebase maintenance and debugging for real-time applications.

### Software Development Intern – Springer Capital

Developed a data extraction service to automate structured data collection from multiple sources. Implemented robust error-handling mechanisms and optimized API performance.

### Software Development Intern – Edunet Foundation (AICTE)

Collaborated on a capstone project aimed at assisting people affected by natural hazards using AI-based solutions. Integrated machine learning models for risk prediction and rapid response.

### Software Development Intern – Zidio Development

Designed backend APIs and implemented authentication workflows for secure web apps. Enhanced database efficiency and system performance through optimized queries.

## PROJECT EXPERIENCE

### AI-Driven Artisan Empowerment Application

Developed an AI-based solution to empower local artisans by analyzing productivity data and providing personalized recommendations.

### Real-Time Object Detection System

Designed using Python and OpenCV for live camera feeds; achieved accurate detection and tracking of moving objects in real time.

### Fraud Detection through AI

Built a machine learning model that identifies potential fraud attempts using public datasets; achieved significant accuracy in early-stage detection.

### Honeypot Threat Analysis

Designed and deployed a honeypot to log unauthorized intrusion attempts and analyze attacker behavior for security insights.

### Advanced Network Diagnostic Tool

Created tools to analyze and monitor network performance, identifying vulnerabilities and optimizing reliability.

### Bug Scanner

Built a scanner to detect common web application vulnerabilities, improving overall security assessment speed.

## **CERTIFICATIONS**

Data Science and Machine Learning (4-week program) – IIT Guwahati

## **KEY STRENGTHS**

Strong foundation in algorithms, data structures, and backend development.

Quick learner with a passion for exploring emerging technologies.

Adept at translating data insights into real-world applications.

Focused on innovation, security, and impact-driven problem solving.

## **INTERESTS**

Artificial Intelligence, Cybersecurity, Open Source Projects, Automation, Network Security