

Harekrishna Bagh

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EDUCATION

Sambalpur University Institute of Information Technology (SUIIT) Odisha, India
Bachelor of Technology (B.Tech) in Computer Science Engineering (Specialization in Cybersecurity) 2023 – Present

TECHNICAL SKILLS

- **Cybersecurity & Exploitation:** Penetration Testing, VAPT, EternalBlue Exploitation, Privilege Escalation, Steganography, Network Security.
- **Security Tools & OS:** Metasploit Framework, Nmap, Wireshark, Burp Suite, Kali Linux, Ubuntu, Zorin OS.
- **System Design & Backend:** RESTful APIs, Webhooks, Microservices, OAuth/JWT, Nginx, MongoDB, SQL.
- **Languages & Frameworks:** Python, Kotlin, Java, C, Bash Scripting, Android SDK.
- **DevOps & Infrastructure:** Docker, Kubernetes (K8s), CI/CD (GitHub Actions), Vercel, Firebase.

PROFESSIONAL EXPERIENCE

Jagannath Security Services *IT Lead & Lead Developer*
2023 – 2024 Sambalpur, India

- Architected and deployed the company's core web infrastructure and secure backend database.
- Designed and integrated a fully automated payroll and attendance system, optimizing internal workflows.
- Managed day-to-day IT operations, ensuring system reliability, network security, and robust data handling.

Freelance Developer & Tech Consultant *Self-Employed*
2022 – Present Remote

- Delivered end-to-end scalable digital solutions, focusing on secure UI/UX design and backend deployment.
- Integrated local enterprises with secure cloud hosting, Google Search console, and third-party APIs.

Nduat Masti Pvt. Ltd. *Web & Backend Developer (Project Based)*

- Engineered the official company website with a strong focus on robust backend system integration.
- Implemented secure data pipelines to handle user information and mitigate vulnerabilities.

INTERNSHIPS

MCL Bharatpur Area *Summer Intern*
May 2025 – June 2025 Talcher, India

- Gained exposure to enterprise-grade IT infrastructure and corporate cybersecurity protocols.
- Assisted in technical documentation and analyzed large-scale industrial network access control practices.

PROJECTS & LABS

Talksy (talksy.co.in) *Kotlin, Firebase, Razorpay, Vercel*

- Engineered a highly scalable, real-time messaging platform, optimizing backend performance for low-latency delivery and end-to-end data security.
- Integrated the Razorpay payment gateway, deploying secure webhooks to handle real-time transaction verification and automated processing.
- Designed backend architecture integrating Firebase cloud functions and secure OAuth authentication.

AI Surveillance & Tracking System (SIH 2025) *PyTorch, YOLOv8, Redis, Docker*

- Developed an end-to-end AI system (Team Drishti) capable of 24/7 video ingestion for real-time anomaly detection.
- Implemented YOLOv8m for person tracking and a 3D Convolutional Network (R(2+1)D) to classify individual actions.
- Architected an asynchronous backend pipeline using Python, Redis Queue (RQ), and a custom Siamese Re-identification Network to track suspects across multiple cameras, deployed via Docker and NVIDIA Container Toolkit.

ISRO Launches App *Published on Google Play Store*

- Architected a live-tracking Android application aggregating real-time space mission telemetry.
- Designed an efficient backend integration strategy using REST APIs to securely cache and display dynamic data.