Sarbagya Gho Shrestha

sarbagyaghoshrestha@gmail.com | +977 9851402011 | Madhyapur Thimi-8, Bode, Bhaktapur

linkedin.com/in/sarbagyashrestha | github.com/fernsky | sarbagya.vercel.app

I'm passionate about shaping systems that connect technology, people, and purpose. From digital governance to embedded systems and flight control, I build solutions that move — designed with precision, purpose, and imagination. Beyond code, I express myself through music — blending logic and emotion into everything I create.

WORK EXPERIENCE

Ninja Infosys   **Jun. 2025 – Present**
Project Manager & Tech Lead | Kathmandu District, Nepal

- Leading technical architecture and project execution for the Digital e-Palika platform serving **50+ municipalities** across Nepal, streamlining citizen services, revenue collection, and grievance handling.
- Architected and engineered the **Integrated Content Management System (ICMS)** now powering **100+ government websites** nationwide with a microservices architecture using Kafka and Kubernetes.
- Coordinating cross-functional teams, managing timelines, and aligning stakeholders to ensure successful delivery of features meeting real-world governance needs while maintaining system scalability and security.
- **Tech Stack: Next.js, NestJS, Kafka, Kubernetes, PostgreSQL, Docker, Redis, CI/CD**

Intensive Study and Research Center   **Jan. 2025 – Jun. 2025**
Full Stack Engineer & DevOps Lead | Kathmandu, Nepal

- Architected and deployed **digital profile systems for 10+ municipalities** including Pokhara Metropolitan City in just **4 months with a 2-person team** (with Trilochan Bhusal), serving 100,000+ citizens.
- Engineered a comprehensive **Survey Management System (SMS)** with custom ODK Fetcher, processing **100,000+ survey responses** with real-time analytics dashboards and live monitoring capabilities.
- Directed end-to-end DevOps pipelines (CI/CD, Docker, AWS EC2/S3, Jenkins) ensuring resilient systems for resource-constrained regions with 99.9% uptime.
- Led field training initiatives, empowering **300+ local officials and enumerators** with digital skills for sustainable civic digitization.
- **Tech Stack: Next.js, NestJS, tRPC, PostgreSQL, MongoDB, Docker, AWS, ODK Collect/Central, Nginx, PM2**

Mandala Foods   **Present**
Tech Lead & Optimization Engineer | Kathmandu, Nepal

- Leading technology and optimization initiatives for a booming food systems startup founded by Dr. Robin Shrestha (Tufts University, USAID veteran) and an innovative team focused on nutrition and circular economy.
- Architecting scalable technical solutions to support sustainable food systems and reduce agricultural loss and waste.

Ibtidaa Softwares Pvt. Ltd.   Oct. 2023 – Dec. 2024
Full Stack Developer & Tech Lead | Nepal (Hybrid)

- Developed and maintained the "Bidesh" App/Website using Next.js for RP Srijan Way To Success.
- Built an Event Management and Visualization Tool using Django and JavaScript for Shramik Sanjal with Chart.js integration.
- **Tech Stack: Next.js, NestJS, PostgreSQL, MongoDB, Express.js, Django REST Framework, Redux.js, Jenkins**

IEEE Pulchowk Student Branch   Apr. 2023 – Jun. 2024
Chair & Creative Director | Lalitpur District, Nepal

- Led IEEE Pulchowk Student Branch as Chair, organizing technical events and workshops, and coordinating student activities.
- Served as Creative Director, managing visual communications and promotional content for the branch.

PointZeroo   Mar. 2022 – Sep. 2022
Frontend Developer | Nepal (Hybrid)

- Maintained an e-commerce website and developed a web application for SSoChe, Pulchowk Campus.
- **Tech Stack: JavaScript, HTML5, CSS, React, MongoDB, Node.js**

KEY PROJECTS

8-bit Breadboard Computer (Ben Eater Inspired)   Jan. 2024 – May 2024
6th Semester Minor Project, IOE Pulchowk Campus

- Built a complete 8-bit computer from scratch using discrete logic ICs with a team (Rohit Joshi, Yugal Pariyar).
- Innovatively created a **custom 128-bit RAM module** due to IC unavailability, demonstrating problem-solving and determination.
- Implemented the full architecture: ALU, control unit, registers, program counter, instruction decoder, clock module.
- Hardware-only project showcasing a deep understanding of computer architecture from first principles.

Digital Profile Platforms – Live: pokhara.digprofile.com
Survey Management System – Live: duduwa-admin.vercel.app
ICMS Platform – Demo: sddodang.lumbini.gov.np

EDUCATION

Tribhuvan University, IOE, Pulchowk Campus   May 2021 – May 2025
Bachelor of Engineering (B.E.) – Electronics, Communication and Information Engineering | Lalitpur, Nepal

Achievements: IEEE Chair, Creative Director, Pulchowk Music Club Executive Member

SOS Hermann Gmeiner School   2019 – 2021
+2 Science (Physics and Mathematics) – Grade: A+ | Sanothimi, Bhaktapur

Achievements: Bestmanship Awardee 2019, Music Club President

TECHNICAL SKILLS

Languages: TypeScript/JavaScript, Python, C/C++, Go, SQL, Shell Scripting

Frontend: Next.js, React.js, Redux.js, Module Federation (MFE), HTML5, CSS/Tailwind CSS, Responsive Design

Backend: NestJS, Express.js, tRPC, gRPC, Django, Django REST Framework, Node.js, Microservices

Databases: PostgreSQL, MongoDB, Redis, SQL, Data Modeling

DevOps & Cloud: Docker, Kubernetes, Kafka, Jenkins, AWS (EC2, S3, Lambda), CI/CD, Nginx, PM2, Coolify

Data Systems: ODK Collect, ODK Central, Data Visualization, Real-time Analytics

Hardware & AI: Embedded Systems, Digital Logic, Computer Architecture, Machine Learning, UAVs, Avionics

AREAS OF INTEREST

Digital Governance: E-government solutions, civic tech, full-stack development for public administration

AI & Embedded Systems: Machine learning, hardware design, UAVs, avionics, IoT applications

Distributed Systems: Scalable architectures, microservices, Kafka, Kubernetes, system design

Creative Arts: Music production and performance, 100K+ views on Instagram as a music artist

IMPACT & ACHIEVEMENTS

- **100+ government websites** powered by the ICMS platform at national scale
- **50+ municipalities** digitized through the Digital e-Palika platform
- **10+ municipal digital profiles** deployed in 4 months with a 2-person team
- **100,000+ citizen records** processed and **300+ officials** trained
- **Custom 128-bit RAM** built for the 8-bit breadboard computer project
- **100K+ views** as a music artist