Suryansh Verma

Bachelor of Technology
Electrical Engineering
National Institute of Technology, Patna

+91-9580104753
suryanshv.ug23.ee@nitp.ac.in
linkedin.com/in/suryanshverma
github.com/suryanshvermaa
suryanshverma.vercel.app

EDUCATION

- **B.Tech., Electrical Engineering** — *Mar 2027*
  National Institute of Technology, Patna — CGPA: 8.26
- **Senior Secondary (12th)** — *May 2022*
  Pt. Deen Dayal Upadhyay Saraswati Vidya Mandir, UP Board — 82.8%
- **Secondary (10th)** — *May 2020*
  Pt. Deen Dayal Upadhyay Saraswati Vidya Mandir, UP Board — 86.17%

EXPERIENCE

- **Conference Website**, Full Stack Developer — *Jan 2025 – Present*
  - Built a full-stack **conference platform** using **React, Node.js, Express** with modular and maintainable components.
  - Containerized and deployed using **Docker** on Vercel/Render, improving reliability and release workflow.

- **Open Source Contribution**, Backend Developer — *Jan 2025 – Present*
  - Developed and maintained **create-express-mongo-prod**, a CLI that scaffolds Express apps (TS/JS) with MongoDB/Mongoose or PostgreSQL/Prisma, Docker, ESLint, Prettier, and Husky.
  - Added optional integrations (**Redis, Kafka, Socket.IO, BullMQ, AWS S3**) and automated setup via interactive prompts to reduce developer onboarding time.

PROJECTS

- **SCS Cloud: Distributed Media Processing & Container Service** — *Oct 2025*
  Tech Stack: Go, TypeScript, Node.js, React, Kubernetes, Docker, gRPC, PostgreSQL, MongoDB, Redis, AWS S3
  - Architected a **distributed microservices platform** on Kubernetes enabling scalable media processing, multi-tenant container execution, and object storage.
  - Built a **gRPC-based orchestration service** that automated pod provisioning and secure scheduling, improving cluster utilization and reliability.
  - Designed and optimized a parallel **HLS transcoding pipeline**, achieving **40–50% faster** encoding through queue workers and concurrency tuning.
  - Implemented subdomain routing and a cache-optimized CDN layer, reducing content delivery latency by **40%**.
  - Developed a full React dashboard with real-time processing views, object storage explorer, billing workflows, and integrated AI-powered assistance.

- **Scalable Todo Management System with C++ Backend & CI/CD** — *Jul 2025*
  Tech Stack: C++20, Drogon, CMake, PostgreSQL, Docker, Kubernetes, Jenkins, ArgoCD
  - Built a high-performance **REST API** in C++20 using Drogon with **JWT authentication**, bcrypt hashing, and PostgreSQL ORM, supporting thousands of concurrent requests.
  - Implemented custom middleware for **auth, CORS, and async error handling**, improving fault tolerance and request throughput.
  - Deployed on Kubernetes with Ingress, Secrets, PVs, HPA, and health checks to achieve **fault-tolerant scaling** and consistent uptime.
  - Built a production-grade CI/CD pipeline using **Jenkins + ArgoCD**, automating tests, builds, scans, and progressive delivery.
  - Achieved **99.9% system availability** by tuning resource configurations, enabling liveness/readiness probes, and optimizing database performance.

SKILLS

- **Programming Languages**: Java, Python, C++, Go, JavaScript, TypeScript
- **Backend & Frameworks**: Node.js, Express.js, Drogon, Gin, React.js, Next.js
- **Distributed Systems & Cloud**: Kubernetes, Docker, gRPC, AWS (EC2, S3), CI/CD, Linux
- **Databases**: PostgreSQL, MongoDB, Redis
- **CS Fundamentals**: Data Structures & Algorithms, OOP, OS, CN, DBMS, System Design Basics

CERTIFICATIONS & ACHIEVEMENTS

- Solved **250+ DSA problems** on **LeetCode** focusing on algorithms, data structures, and complexity optimization.
- Ranked in the **Top 5%** in NPTEL "Joy of Computing with Python" by IIT Madras.
- **2000+ GitHub contributions**, showcasing consistent development, debugging, and open-source collaboration.

POSITIONS OF RESPONSIBILITY

- **Web Team Member**, Hackslash, NIT Patna — *May 2024 – Present*
  - Built the official **Hackslash** and **ByteVerse (NITP hackathon)** websites using Next.js, Tailwind, and Framer Motion.
  - Improved site performance, achieving **40% faster** load times and **15% lower** bounce rates.