

Rudransh Srivastava

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SUMMARY

Full-stack developer with demonstrated production experience building REST APIs, real-time IoT systems, and cross-platform mobile applications. Secured \$5,000+ in competitive prizes across 10+ national and international science fairs & hackathons.

EDUCATION

SRM Institute of Science and Technology, Kattankulathur, Chennai

Aug 2026 – Jul 2030

B.Tech. Computer Science and Engineering

Sunbeam English School, Varanasi — CBSE Class XII

Mar 2021 – Apr 2025

Physics · Mathematics · Chemistry · English · Computer Science · Entrepreneurship

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C++, SQL, HTML5, CSS3

Frameworks & Libraries: Node.js, Express.js, Next.js, React.js, React Native (Expo), FastAPI, Tailwind CSS

Databases & Tools: MongoDB, PostgreSQL, MySQL, SQLite, Prisma ORM, SQLAlchemy, JWT, Git, GitHub, Postman

AI / ML & APIs: LangChain, OpenAI GPT-3.5, Whisper, Gemini API, numpy, pandas

APIs: REST, GraphQL, WebSocket (Socket.io), Webhooks

Hardware & IoT: Raspberry Pi, Arduino, Microcontrollers (ARM/AVR), Arduino IDE

PROFESSIONAL EXPERIENCE

Luneblaze — Full-Stack Web Development Intern

Dec 2023 – Feb 2024

Remote

- **Engineered** 8+ production-grade RESTful API endpoints in **Express.js (Node.js)**, reducing average server response time by 30% through asynchronous handlers and optimized middleware chaining.
- **Architected** a fully responsive, cross-platform UI in **Next.js + Tailwind CSS**, increasing cross-device compatibility to 100% of tested viewports and earning the **Best Intern Award** among 200+ interns.
- **Implemented** secure data exchange patterns (input validation, parameterized queries, JWT-based route guards) across all API routes, eliminating SQL-injection and XSS attack surfaces identified in code review.

Think Startup Youth Ideathon — Executive Intern & Project Evaluator

Aug 2023 – Nov 2023 /

India's Largest Ideation Festival

Jun 2024 – Nov 2024

- **Evaluated** 60+ project presentations against rubrics spanning innovation, feasibility, social impact, and pitch quality; and provided structured feedback loops for 200+ participants, delivering written evaluations that improved prototype iteration rates across the finalist cohort. Directly mentored 3 teams that advanced to podium finishes.
- **Recruited and supervised** 25+ campus ambassadors across 15+ Indian states, scaling event outreach by an estimated 40% compared to the prior cohort.

TECHNICAL PROJECTS

BuildX — Full-Stack Event Registration & Quiz System [[GitHub](#)]

Stack: Node.js · Express.js · TypeScript · PostgreSQL · Prisma ORM · JWT · React.js · TailwindCSS

- **Architected** a 4-layer REST API powering event registration and quiz workflows, implementing full CRUD operations, role-based access control (Admin/Participant), JWT-based authentication, bcrypt password hashing, validated file uploads with Multer, and a scalable PostgreSQL data model using Prisma ORM.
- **Engineered** a real-time quiz system using Socket.IO, enabling isolated quiz sessions, live participant synchronization, waiting rooms, automatic leaderboard generation, and concurrent quiz execution.
- **Developed a responsive React.js and TailwindCSS frontend**, building a custom client-side SDK to handle seamless, two-way request/response communication with backend endpoints, along with a Socket.io client to enable low-latency, two-way communication for real-time quiz participation.

Mini-ICU — Portable Emergency ICU [[GitHub](#) | [Academic Paper](#)]

Stack: ARM Microcontroller · Pulse Oximeter / ECG / EMG Sensors · Express.js · MongoDB · Expo

- **Engineered a first-aid ICU system** using an ARM-controlled high-torque DC motor and an oscillating compression mechanism to automate variable Ambu bag compression, targeting a manufacturing cost under \$50.
- **Integrated a multi-sensor array** (pulse oximeter, ECG, EMG) to poll critical patient vitals at sub-second intervals, programming the microcontroller to autonomously push real-time telemetry data to a centralized REST API.
- **Developed a cross-platform mobile application** using Expo and Express.js/MongoDB to consume the API endpoints, enabling remote healthcare providers to access and monitor live patient vital streams.

Eye-Blink — Real-Time Driver Drowsiness Detection [[GitHub](#)]

Stack: Python · OpenCV · Raspberry Pi · Infrared Camera · ABS Integration

- **Programmed** a computer vision pipeline in **Python** utilizing **OpenCV** for real-time facial landmark extraction, analyzing eye-blink dynamics, blink frequency, and head-pose deviation to classify drowsiness states with >90% test-set accuracy.
- **Deployed** the inference pipeline on a **Raspberry Pi** with an infrared camera module, enabling night-time detection and integrating directly with the vehicle's computer-inhibited ABS brake system to trigger emergency braking upon drowsiness detection.

TubeAI — YouTube Summarization & Chatbot [[GitHub](#)]

Stack: TypeScript · LangChain · OpenAI Whisper · GPT-3.5 · YouTube Transcript API

- **Architected** a dual-path transcription system: extracting captions via the **YouTube Transcript API** when available, and falling back to **OpenAI Whisper** for audio transcription, achieving 100% video coverage regardless of caption availability.
- **Built** an interactive chatbot layer on **GPT-3.5** that answers natural-language user queries against video-specific context, reducing average content review time by enabling targeted Q&A instead of full video scrubbing.

LEADERSHIP & EXTRACURRICULARS

Hack Club SBS BGN — Co-founder & President

Jun 2022 – Feb 2025

- **Founded** Varanasi's first HackClub chapter, scaling to 10+ affiliated branches and independent organizations reaching 1,000+ students across the state.
- **Delivered** 10+ in-house projects, generating \$5,000 in prizes and grants across 10+ science fairs and hackathons.

Sunbeam English School — Head Boy

Jun 2023 – Mar 2024

- **Led** the planning and execution of 5+ major school fests, collaborating directly with faculty on student welfare policy; founded and structured 5 new co-curricular clubs to expand student engagement.

Ennead International MUN — Head of Technology

Jul 2022 – Aug 2022

- **Directed** the 8-person technical team for a 100+ delegate MUN conference; built and managed the event website, implemented registration/login flows, and delivered real-time breakout room support for all delegates.

HONORS & AWARDS

- **Winner** — Inspire Awards MANAK (Intel & DST, India): Selected among 10 lakh+ national nominations.
- **Winner** — Think Startup Youth Ideathon 2022 @ IIT Delhi: Selected from 90,000+ participants.
- **Winner** — NITI Aayog ATL Marathon 2023–24: Placed in the top 500 of 20,000+ entries.
- **Winner** — Innovate4Impact Smart City Challenge, La Trobe University, Australia.
- **Winner** — HACK JKLU @ JK Lakshmipat University: 1st place among 1,000+ participants.
- **Runner-Up** — Unfold 2023 (CoinDCX Multi-Chain Hackathon @ KTPO Bangalore): Top 2 of 1,000+ participants.
- **3rd Place** — TCL B-Plan Competition, Think Startup @ Prometheus School: Top 3 of 3,500+ participants.
- **Finalist** — Vivo Ignite 2023: Top 200 teams of 19,000+ teams nationwide.
- **1st Place** — Teenovations Robotics Model Making @ COFAS, CMS Lucknow.
- **Runner-Up** — Ministry of Education (MoE) IIC Regional Meet: Selected as runner-up from regional entries at BHU Varanasi; pitched to national investors and secured incubation offers.
- **Best Intern Award** — Luneblaze: Ranked #1 among 200+ full-stack web development interns.
- **Publication** — "Mini-Vent: An Economical Miniaturized Intensive Care Unit System" — International Research Journal of Engineering and Technology (IRJET).