



RISHIT TANDON

rishit.tandon.7@gmail.com | +91 7394865520 | rishit-tandon.netlify.app | github.com/RishitTandon7

PROFESSIONAL SUMMARY

Third-year Computer Science student (B.Tech, SRM IST, 2027) with hands-on experience in AI/ML, Computer Vision, IoT, and full-stack development. Proficient in Python, C++, Java, JavaScript, and SQL. Experienced building REST APIs, AI-powered tools, IoT systems, and real-time applications. Proven track record of winning national-level hackathons and delivering measurable improvements in production environments.

EDUCATION

B.Tech, Computer Science & Engineering | SRM Institute of Science and Technology *2023 – 2027 (Expected)*
Selected for Industry Coursework: Metaverse (Top 80/Batch) & Responsible AI (Top 120/Batch) – Faculty Selected.

Senior Secondary (XII), CBSE Science | Delhi Public School, Lucknow *2023*

Secondary (X), ICSE | Seth M. R. Jaipuria School, Lucknow *2021*

TECHNICAL SKILLS

AI/ML & Gen AI: TensorFlow, PyTorch, OpenCV, LangChain, LangGraph, NLP, LLMs (Llama 3.2), Agentic AI, Scikit-learn

Programming Languages: Python, C++, JavaScript, SQL, C, Java

Web & Cloud: React, Next.js, Tailwind CSS, REST APIs, MySQL, Docker, HTML5, GitHub Actions

Backend: Java, Python, RESTful APIs, Webhooks, Authentication

Robotics, IoT & Embedded: IoT Digital Twins, ESP32, Arduino, Motor Drivers, Rovers, Unity (Simulations)

PROFESSIONAL EXPERIENCE

Software Development Intern | DGTL Innovations *May 2025 – July 2025*

- Engineered high-performance REST APIs using Python and MySQL, reducing query response time by 20%.
- Designed responsive frontend components using HTML, CSS, and JavaScript, increasing user retention by 15%.
- Streamlined development workflows using Git and participated in rigorous code reviews, achieving 99% code stability.

Research Intern – ML & Image Processing | SRM IST in collaboration with NIDM *Oct 2025 – Present*

- Spearheading R&D for Glacial Lake Outburst Flood (GLOF) detection using Deep Learning on satellite imagery.
- Developing automated pipelines to monitor glacial expansion, enhancing hazard detection accuracy by 15%.
- Optimizing CNNs for geospatial data, reducing alert generation latency by 40% for disaster response.

KEY PROJECTS

Agent Marketplace | *React, Next.js, Python, FastAPI, Supabase, REST APIs, Razorpay, AWS*

- Architected and deployed a full-stack AI agent marketplace where developers can discover, purchase, and consume specialized AI agents via auto-provisioned REST API keys — enabling plug-and-play agent integration into any project.
- Engineered a Python/FastAPI backend with Supabase (PostgreSQL) for user and API key data storage, implementing a secure multi-tenant provisioning system with usage-scoped authentication and per-user request isolation.
- Integrated Razorpay payment gateway with webhook-driven order fulfillment — API keys are automatically generated, scoped, and delivered in real time upon payment confirmation with zero manual intervention.
- Deployed on AWS with environment-based config management, production-grade CORS policies, and a scalable architecture supporting multiple concurrent agent endpoints.

LinkedOut – AI LinkedIn Post Scheduler | *Next.js, Python, FastAPI, Supabase, Gemini API, LinkedIn OAuth, PWA,*

- Built a full-stack PWA (installable as a native app) with LinkedIn OAuth 2.0 authentication and persistent token caching — eliminating repeated logins via secure session management backed by Supabase (PostgreSQL).
- Engineered an agentic caption and hashtag generation pipeline using Gemini API with persona-based prompt engineering, producing tailored content that matches the user's professional tone and audience.

- Built a post scheduling engine with Python/FastAPI that queues and auto-publishes LinkedIn posts at user-defined times; deployed on Vercel with Supabase storing user data, scheduled posts, and OAuth tokens.

AI Negotiation System | *Python, Flask, Gemini 2.0, Playwright, Ollama, Llama 3.2*

- Built an autonomous multi-agent negotiation system (Buyer vs. Seller) using Gemini 2.0 and recursive feedback loops to optimize product selection.
- Implemented a neuro-symbolic evaluation pipeline using Llama 3.2 as an LLM judge, achieving a 0.87 ROC-AUC score.
- Engineered a Playwright-based scraper with Google Shopping fallback, achieving 99.9% data reliability by bypassing CAPTCHAs.

NeuroVibe – Brain-Controlled Smart Wheelchair | *ESP32, BioAmp EXG Pill, Machine Learning, Arduino*

- Built a Brain-Computer Interface (BCI) system using EEG signals (BioAmp Band + ESP32) to control wheelchair movement in real time.
- Trained a Random Forest classifier to decode mental commands (Move, Stop, LED ON/OFF) from processed EEG data.
- Delivered a low-latency, low-cost assistive mobility solution integrating ML model with motor control and appliance systems.

AI Smart Glasses (AISGR) | *LLaMA 3.2 Vision, Python, OpenCV, Agentic AI*

- Built a wearable AI system with onboard camera, microphone, and speaker for real-time object detection and voice interaction.
- Added hands-free video/phone calls, object identification, environment summaries, and distance cues for assistive use.
- Optimized vision and audio pipeline for low-latency, smooth real-time performance.

Multiverse – IoT Digital Twin Platform | *React, Next.js, Tailwind CSS, Unity, C#, REST APIs*

- Built a real-time Digital Twin system synchronizing live telemetry from 20+ ESP-based nodes (100+ sensor data points) into a Unity 3D environment.
- Implemented bi-directional control over a custom API pipeline, enabling remote actuation and achieving a 40% improvement in monitoring responsiveness.

EduStream – Virtual Classroom Platform | *Java, Python, Client-Server Architecture*

- Developed a Java-based virtual classroom with role-based access control for secure content management and teacher-student collaboration.
- Integrated a Python-based video calling module and classroom creation via unique codes, following clean modular architecture.

TREAT – Community Meal Discovery Platform | *Java, MySQL, Twilio API, SMS & WhatsApp Automation*

- Built a multilingual WhatsApp chatbot supporting food donations, event registration, volunteer onboarding, feedback, and location-based temple meal discovery.
- Implemented Java backend with MySQL for user/event/donation management and automated SMS/WhatsApp notifications via Twilio webhooks.

Med Assist – Symptom Checker & Medicine Delivery Robot | *Python, Twilio WhatsApp API, Arduino, HC-05*

- Built a mobile medicine-delivery robot using Arduino UNO, L298N motor driver, and HC-05 Bluetooth for wireless indoor delivery.
- Developed a WhatsApp chatbot using Twilio and Python to let users request medicines and receive automated responses.

CERTIFICATIONS

- Machine Learning (NPTEL) – IIT Kharagpur
- Python for Data Science, AI & Development – IBM
- Unity Essentials – Unity Technologies
- Database Management Systems (DBMS) – Udemy
- Machine Learning Bootcamp (Arcade Intelligence) – Next-Gen AI, SRM IST
- Learn Ethical Hacking From Scratch – Udemy

AWARDS & ACHIEVEMENTS

- 1st Place: SUTD Smorphi (Singapore), CismoHack (National Level), ML Project Expo (College Level), South India Conclave, Semiconductor Expo, NWC Expo.
- 2nd Place: C.Tech Project Expo, Arduino Hackathon, SUTD Smorphi (Category).
- Top Rankings: 3rd at BIS Hackathon, 4th at Hack Sustain, 5th at SRM Founder's Hackathon.