# Sourav Kumar

✉ sourav.kumar.satvic  🔗 Portfolio  in sourav-satvic  ⚲ sa7vic  </> satvic

## Education

**BTech  Jawaharlal Nehru University**, Electronics & Communication Engineering          Aug 2024 – May 2028
- CGPA: 8.01/9.0

## Technical Skills

**Languages:** Java, C++, JavaScript, Python, SQL, Go
**Frontend:** React 18, Tailwind CSS, Bootstrap, HTML5, CSS3, Recharts, Framer Motion
**Backend:** Flask, Go (net/http), REST APIs, Node.js
**Tools & Platforms:** Git, GitHub, Supabase, Vite, Pandas, Matplotlib, Scikit-learn

## Projects

**FlowSense – Cognitive Pattern Visualization Dashboard**                                      GitHub ⧉
- Built full-stack cognitive analytics platform with Chrome extension (Manifest V3) tracking focus sessions across 30-second windows with real-time cognitive state detection (Aligned, Drift, Idle, Fatigue, Recovery)
- Engineered extension service worker managing session lifecycle, background timers, content scripts tracking user interactions (keydown/mousedown/scroll/click), and bidirectional communication with Flask REST APIs
- Implemented URL categorization engine with 100+ domain patterns computing context alignment scores; integrated Chrome Storage and Tabs APIs for state persistence and context monitoring with dynamic badge indicators
- Developed React 18 dashboard with modular components visualizing temporal cognitive patterns using Recharts and CSS Modules; integrated Flask APIs with privacy-by-design architecture excluding raw keystrokes and URLs

**SmartGov.ai – Explainable Audit Risk Intelligence System**                                   GitHub ⧉
- Developed full-stack web platform for transparent government spending analysis with explainable audit risk intelligence system serving real-time financial insights
- Built responsive React frontend with Vite build tooling, Tailwind CSS utility framework, Recharts for interactive data visualization, and Framer Motion for smooth UI animations
- Designed and implemented CSV ingestion pipeline using PapaParse for data parsing and Supabase backend for real-time database operations and API management
- Created interactive dashboards with Lucide React icons for risk analytics, enabling stakeholders to track audit trends and spending anomalies

## Achievements

- **Semi-finalist** – Midas Touch, IIT Delhi (BECon 2025) | **1st Place** – Tech Trials, JNU SoE EnggQuest
- **2nd Place** – ForkQuest, JNU SoE EnggQuest | **CodeChef 2-star** (Peak Rating: 1432)
- Solved **250+ DSA problems** across competitive programming platforms (LeetCode, CodeChef, Codeforces)

## Leadership & Extracurricular

**Secretary – Co.L.D Club**
- Maintained meeting records and managed internal communications
- Planned and conducted beginner-level coding workshops; coordinated contests and technical events
- Contributed to initiatives to strengthen the club's coding culture

**Executive Member – DeRobotica and UAV & Drone Club**
- Assisted in organizing workshops, competitions, and technical discussions on robotics and UAV systems

## Certifications

- Responsive Web Design – freeCodeCamp ⧉
- Algorithms, Part I – Princeton University (Coursera) ⧉