

YUG HITECHKUMAR PATEL

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SKILLS

Languages & Frameworks: Python, JavaScript, HTML/CSS
Backend & Data: FastAPI, SQLAlchemy, PostgreSQL, SQLite, JWT Authentication, Pydantic
AI & APIs: Prompt Engineering
Tools & Platforms: Git, GitHub, Linux, Netlify, Vercel
Foundations: Networking Fundamentals, Cybersecurity Fundamentals

EXPERIENCE

Open Source Contributor — GSSoC 2026 May 2026 – Present

GirlScript Summer of Code

- Contributed 6 merged pull requests across 4 repositories — primarily bug fixes, plus one feature integration
- Integrated a Budget Tracker into an existing project catalog and fixed related modal rendering and mobile filter bugs (python-mini-project)
- Added structured JSON logging middleware to a FastAPI backend (PDF-Assistant-RAG)

PROJECTS

TraceBack | Log Analysis Tool Dec 2025 – Mar 2026

github.com/yughpatel/TraceBack

- Applied a KNN classification model (originally built for NetGuard) to a new domain — server log analysis — flagging entries associated with brute-force attempts, SQL injection, and XSS patterns for review
- Built for Google for Startups' "Prompt to Prototype" program (with Scaler); later extended for the ET GenAI Hackathon and used as a CS50x final project
- Presents results through an interactive interface with tables, summaries, and charts; processes all data in memory without storing logs

LedgerLines | Personal Finance Tracker Jun 2026 – Present

- Building a full-stack personal finance tracker that lets users log, categorize, and visualize income and expenses
- Hands-on project to strengthen backend development and security skills — designing and writing the system from scratch rather than following a tutorial
- Key focus areas: relational database schema design, secure password handling and token-based authentication, and clean API design with request/response validation
- Backend: FastAPI, PostgreSQL, SQLAlchemy v2, Pydantic v2, JWT Authentication, Alembic | Frontend: React, Tailwind CSS, Recharts

Samarpan Community Platform Dec 2025 – Present

- Building a web platform for Samarpan Kuwait to digitize community operations, replacing paper-based membership forms and record-keeping
- Designed a modular frontend architecture with reusable components and organized asset management
- Backend integration using Flask and SQLite is planned; current contribution is the frontend architecture

NetGuard | ML-Based Network Intrusion Detection Mar 2026 – Apr 2026

- University coursework project — built a K-Nearest Neighbors (KNN) model to classify network traffic as "Normal" or "Attack" using the NSL-KDD dataset, based on features such as duration, protocol, and byte count
- Model later reapplied to a second domain (log analysis) in the TraceBack project
- Currently refining model evaluation (confusion matrix, precision/recall analysis) based on faculty feedback

TransitOps | Smart Transport Operations Platform Hackathon Project

- Built as part of a team hackathon — a full-stack platform for fleet deployment, vehicle compliance, driver registries, and logistics management
- Frontend: React 18 (Vite), TypeScript, Tailwind CSS, Framer Motion | Backend: Node.js, Express

EDUCATION

B.Tech, Computer Science & Engineering 2025 – 2029

Institute of Technology, Nirma University, Ahmedabad

CERTIFICATIONS

- CS50x: Introduction to Computer Science — Harvard University (Jan 2026)
- Startup School: Prompt to Prototype — Google for Startups (Nov–Dec 2025)
- Generative AI Foundations Certificate — Microsoft, via UpGrad (Oct 2025)
- Programming with Python Certification — Internshala Trainings (Jun 2025)
- Coding Essentials: Logic Building for Beginners — Scaler Topics (Jun 2025)

ADDITIONAL INFORMATION

- Represented Kuwait's U19 national cricket team as a medium-pace bowler; freelance event photographer and volunteer with the Samarpan community, Kuwait