

Khushneet Singh ksploitx.dev

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SUMMARY

Full-stack developer with experience in building AI-powered applications and scalable backend systems.

EDUCATION

B.Tech, CSE Cyber Security Graduating July 2026
Lakshmi Narain College of Technology and Science, Bhopal, M.P

Higher Secondary Education Graduated 2022
All Saints Higher Secondary School, Khajuraho, M.P 84.4%

EXPERIENCE

Chief Mentor and Instructor Jan 2023 - Mar 2024
AICTE Idea Lab

- Mentored student teams in IoT and Hardware projects at the institute's innovation lab.
- Provided guidance on IoT, Raspberry Pi integrations and networking concepts through hands-on workshops.

Graphic and Tech Lead Jan 2024 - Jan 2025
Developer Club at LNCT

- Led the design and technical initiatives for the developers club as an early founding member, managing branding, event creatives, and technical workflows for community activities.
- Helped organize events, workshops, and hackathons while supporting members with development.

PROJECTS

Self-Improving AI Pipeline  [Weave](#)

- Built a multi-agent LLM orchestration system using LangGraph and FastAPI with dynamic routing, per-agent token budgets, and real-time SSE streaming across 6 specialised AI agents.
- Implemented a self-improving eval pipeline with 15 test cases scored across 6 dimensions; a Meta-agent auto-proposes prompt rewrites from failures under human-in-the-loop review.
- Designed the backend infrastructure with PostgreSQL, Redis/Celery, FAISS vector search, Alembic migrations, and Docker Compose for multi-service deployment.

Network Vulnerability Scanner  [PiSentinel](#)

- Portable network scanner on Raspberry Pi Zero using Aircrack-ng for packet capture and traffic analysis.
- Configured monitor mode interfaces with hostapd for passive 802.11 frame sniffing, ARP spoofing and rogue device detection.
- Used Flask-WebSockets to stream live scan results, network topology, and CVE vulnerabilities.

RAG Ready AI Dataset Pipeline  [DataSanity](#)

- End-to-end tool that automates dataset preprocessing using LLMs.
- Engineered an AI pipeline for dataset cleaning, schema-aware synthetic data generation, and embedding-based vectorization to produce RAG-ready datasets.
- Integrated Exa semantic search to enrich incomplete data via real-time web results.

Dart Multilingual Dependency  [AutoLingo](#)

- Shipped a published Dart package - a zero-config CLI that scans Flutter apps for UI strings, auto-generates ARB files
- Flutter apps to go multilingual without touching application code(`init` → `generate` → `translate`)

ACHIEVEMENTS & RESEARCH

AMD SlingShot Finalist

[Autism Care Ecosystem](#)

- Selected among top teams nationally for ACE Mobile, an AI-powered Flutter app for autism care.
- M-CHAT, TFLite assessments & LLM summaries for autism management

SIH Grand Finalist

[in Post](#)

- Led the development and hardware integration of the kiosk interface for the tourism assistance system.
- Built with Electron + React for tourist assistance and information delivery.
- Used MQTT protocol and REST API for real-time synchronization of content across Raspberry Pi.

Research Paper: AI-Enhanced Gunshot Detection System

[View Paper](#)

Co-authored a paper on FPGA-based AI gunshot detection integrating LoRaWAN for border surveillance. Explored direction-of-arrival estimation and real-time acoustic event analysis for security applications.

SKILLS

Programming Languages	Python, Java, TypeScript, Swift, Dart, PostgreSQL, pgvector
Frameworks & Libraries	FastAPI, Django REST Framework(DRF), React, Node.js, Next.js, Flutter, SwiftUI, LangChain, LangGraph, Google ADK, FAISS
Platform & DevTools	Git, Docker, Postman, Github Actions, Semantic Search(Exa), Raspberry Pi, XCode, REST APIs, FireBase, SupaBase
Soft Skills	Problem Solving, Team Collaboration, Communication Skills, Hackathon