

Sahil Rane

+91-9322119685 | sahilrane249@gmail.com | github.com/wizardwithcodehazard | linkedin.com/in/sahilrane8 | sahilrane.pages.dev | Mumbai, India

Summary

10× hackathon winner with hands-on experience building backend systems and AI-driven projects. Currently focused on deepening knowledge in backend engineering, networking, and modern AI, with growing interests in quantitative finance and scalable application development.

Education

University of Mumbai <i>B.Tech in Information Technology, CGPA: 8.6</i>	Mumbai 2023–2027
Ramnarain Ruia Autonomous College <i>Pre-University in Electronics</i>	Mumbai 2021–2023

Experience

Deepcytes Cyberlabs (UK) <i>Research Analyst</i>	Mumbai Jul'25–Dec'25
- Led frontend development for the CyberSafe content management system (CMS), building responsive interfaces for cybercrime intelligence and awareness. - Contributed to backend development using Python and Django, supporting scalable content management, database integration, and application workflows. - Enhanced AI-assisted information retrieval through prompt engineering, knowledge base optimization, and LLM workflow improvements to increase response relevance and accuracy.	

Key Projects

Generative AI & DevOps <i>PRism – AI-Powered Automated Code Review Agent GitHub</i>
- Built a full-stack platform using FastAPI and Next.js to automate structural code reviews on GitHub pull requests with asynchronous background processing for large diffs. - Developed an LLM-based analysis pipeline using Groq APIs with structured JSON outputs to identify security issues, bugs, and risky code patterns across pull requests. - Integrated Discord-based ChatOps workflows for real-time review summaries, issue tracking, and developer notifications.
Agentic AI Project <i>Clairis – Agentic AI Form Companion GitHub</i>
- Built a serverless AI agent that converts traditional forms into conversational workflows using multimodal LLM interactions. - Implemented OCR, validation logic, and adaptive follow-up handling using Gemini APIs and custom workflow orchestration in JavaScript.
Quantitative Finance & AI Project <i>QuantDevs – Options Pricing & AI Consultant GitHub</i>
- Built an American options pricing engine using Binomial Trees, optimized with Numba JIT for sub-100ms terminal execution. - Integrated a LLaMA-3.3-70B “AI Consultant” to translate complex Greeks and risk metrics into actionable trade memos.
Research & Visualization Project <i>Wolftor – AI-Powered STEM Visualizer GitHub</i>
- Architected a platform to solve STEM problems and generate Manim animations using Llama 3.3 (via Groq) for solving and Gemini 2.5 for visual scripting. - Developed a robust Django backend to orchestrate image parsing via Gemini Vision, LLM reasoning, and FFmpeg-based video rendering.

Technical Skills

Languages: Python, C++, C, JavaScript, SQL, HTML, CSS
Backend: FastAPI, Django, REST APIs, JWT Authentication, Asynchronous Programming
AI/ML: Tensorflow, Pytorch, Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, LLMs, Generative AI
Databases: MySQL, MongoDB, Database Design, Query Optimization
Developer Tools: Git, GitHub, Linux, Podman, Docker, Excel, n8n
Scientific Computing: Qiskit, Numba, FFmpeg

Certifications

Recent: CS50 Database (Harvard University, Apr 2025)
Programming: C Programming Specialization (Duke University, Jun 2024) • Python for Data Analysis (freeCodeCamp, Jun 2024)

Leadership & Volunteering

Technical Member: Technical Volunteer & Coordinator at SAKEC’s AURUM’24 Symposium, TechExpo & Hackathon (Jan-Mar 2024)
