

Sahil Rane

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Summary

10x Hackathon Winner with a focus on research, low-level programming, computational systems and core ML. Currently exploring Gen AI and quantitative finance, driven by a passion for precision, performance, and real-world impact.

Education

University of Mumbai

B.Tech in Information Technology, CGPA: 8.6

Mumbai

2023–2027

Ramnarain Ruia College

Pre-University in Electronics

Mumbai

2021–2023

Experience

Deepcytes Cyberlabs (UK)

Research Analyst

Mumbai

Jul'25–Dec'25

- Contributed to CMS platform development for cyber intelligence operations using modern web technologies
- Conducting comprehensive research on emerging cyber threats, attack vectors, and criminal tactics
- Analyzing threat intelligence data to support proactive security measures and risk assessment

E-Cell, SAKEC

Web Developer

Mumbai

Jul'24–Jul'25

- Designed and maintained E-Cell Blog website using React and modern web technologies, enhancing UX/UI

Key Projects

Agentic AI Project

Clairis – Agentic AI Form Companion | GitHub

- Developed a standalone, serverless AI agent that transforms digital forms into natural, multimodal conversations using Google Gemini.
- Engineered an Agentic Decision Engine to handle real-time validation, OCR via Gemini Vision, and tone-adaptive follow-ups, migrating logic from n8n to pure JavaScript.

Generative AI Project

n8n RAG Bot – Document-Based Intelligence

- Built a Retrieval-Augmented Generation (RAG) system using n8n for workflow orchestration and context-aware response generation.
- Integrated vector-based retrieval to ground LLM outputs in specific local datasets, focusing on minimizing hallucination through optimized chunking.

Research & Visualization Project

Wolfstor – AI-Powered STEM Visualizer | GitHub

- 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.

Quant Finance & AI Project

QuantDevs – Options Pricing & AI Consultant | GitHub

- 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.

Technical Skills

Languages: Python, C++, C, SQL, HTML, CSS, JS

AI/ML: PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Tableau

Framework & Tools: Devops, FastAPI, Django, Excel, Git, Qiskit (Quantum Computing), n8n

Databases: MySQL, MongoDB, Database Design & Optimization

Certifications

Recent: CS50 Database (Harvard University, Apr 2025) • Google Analytics Certified (Jul 2024)

Programming: C Programming Specialization (Duke University, Jun 2024) • Python for Data Analysis (freeCodeCamp, Jun 2024)

Web Dev: Responsive Web Design Certification (freeCodeCamp, Jun 2024)

Leadership & Volunteering

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