

# Ayush Kumar Ghosh

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Resumes are old fashioned, chat with my **AI Portfolio** to know more about me

## Skills

- Python | Flask | FastAPI | Java | Flutter | Dart | Node | Javascript | TypeScript | NextJS | ReactJS | MySQL | Supabase | Firebase | Git
- Azure | Cloud Computing | AWS Lambda | Kubernetes | Docker | Vercel | Generative AI | OOP
- Frontend | Backend | Full-Stack | Microservices

## Experience

**SAP Labs India**, Developer Associate

Karnataka, India

August 2023 – Present

### AI Developer:

- Developed a **GenAI based python application** from scratch, capable of processing **millions of rows** of tabular data and answering **complex queries with 90%+ accuracy** using **Query-to-SQL and Agentic AI** and increased the productivity of the users by 40%.
- Implemented dynamic, interactive visualizations (charts and graphs) to effectively communicate key patterns and trends alongside AI-generated messages.
- Implemented an agentic approach using **Langgraph** workflow agents to handle complex queries with tool-based reasoning and step-by-step execution.
- Reduced average response time from **13 seconds to 5 seconds** through optimized prompt engineering, caching strategies, and efficient tool invocation.
- Employed **OpenAI GPT-4o** and **LangChain** for sophisticated query interpretation, semantic understanding, and response generation.
- Built a modular **Python-based backend**, ensuring extensibility and smooth integration with diverse datasets and data formats.
- Developed RESTful APIs using **Java Spring Boot** for efficient data manipulation and retrieval in **SAP HANA DB**, ensuring optimized performance and seamless integration.
- **Tech Stack:** Python, Langchain, Langgraph, Gen-ai-hub, Joule, SAP BTP, Fast API, Uvicorn, AI Agents, Flask, Java, SAP UI5, Cloud-foundry.

### Flutter Developer:

- Developed a **cross-platform mobile application** to centralize workplace services for SAP employees, streamlining day-to-day tasks for improved convenience and efficiency.
- Implemented services such as cafeteria food booking and employee news, consolidating multiple employee needs into a single platform.
- Built a seamless, responsive UI using **Flutter and Dart**, ensuring an intuitive user experience across both Android and iOS devices.
- Integrated multiple backend APIs with the frontend, enabling smooth real-time data exchange and a cohesive user experience.
- **Tech Stack:** Flutter, Dart, RESTful APIS.

**Ziroh Labs**, Intern

Karnataka, India

January 2023 – March 2023

- Built a Python script for automated MySQL setup and configuration for clients.
- **Tech Stack:** Python, MySQL.

## Personal Projects

### AI DB Analyzer

- A chatbot that analyzes databases and answers user's queries through messages, tables, and graphical representations. (Python, Pollinations AI, Chroma DB, SQLite)
- <https://github.com/ayushkumarghosh/AI-DB-Analyzer>

### AI Assisted Ecommerce Product Scraper

- This project uses Playwright to fetch e-commerce websites, BeautifulSoup to extract URLs, and Google's Gemini LLM to identify product URLs and categories. It dynamically generates and executes a custom filter function for product URL identification.
- <https://github.com/ayushkumarghosh/AI-Assisted-Ecommerce-Scraper>

## Education

**M.Tech in Software Engineering**, BITS Pilani, Rajasthan

2025

- CGPA: 6.9 (out of 10)

**B.Tech in Computer Science Engineering**, Amity University Kolkata, West Bengal

2023

- CGPA: 8.12 (out of 10)
- Captained IT Club and hosted college events.