

# Akash Yadav

+91-9140331096 | ✉ akashyadavzm8@gmail.com | [in linkedin.com/in/akash-yadav](https://www.linkedin.com/in/akash-yadav)  
[github.com/akashcodejames](https://github.com/akashcodejames) | [leetcode.com/u/AkAsH\\_Ydv](https://leetcode.com/u/AkAsH_Ydv)

## EDUCATION

<b>NITRA Technical Campus</b> <i>Bachelor of Technology in Computer Science Engineering</i>	<i>Ghaziabad, India</i> <i>Aug. 2021 – May 2025</i>
<b>Vidya Vahini School</b> <i>Class 12 (CBSE) – 79%</i>	<i>Prayagraj, India</i> <i>Jan. 2018 – May 2019</i>

## EXPERIENCE

<b>Freelance Python Developer</b> <i>Upwork</i>	<i>Jan. 2025 – Present</i> <i>Remote</i>
<ul style="list-style-type: none"><li>Engineered code churn analysis tool with GitHub APIs and Pandas for multiple client repositories, reducing manual code review time by <b>60%</b> and improving development team productivity</li><li>Constructed automated Excel dashboards with data transformation pipelines to visualize code trends across 20K+ lines, enabling data-driven decisions for technical debt management</li><li>Built financial data analysis module processing large datasets daily, generating comprehensive market trend reports and predictive indicators for stock analysis</li></ul>	

## PROJECTS

<b>College ERP Management System</b>   <i>Flask, MySQL, Redis, Celery, Docker, NGINX</i>	<i>May 2025</i>
<ul style="list-style-type: none"><li>Architected full-scale ERP system with RBAC for 5 roles managing 1000+ student and faculty accounts with comprehensive security (CSRF protection, bcrypt hashing, rate limiting)</li><li>Deployed async email notification system using Celery task queue and Redis message broker for high-volume communications</li><li>Created core modules: Library Management (5K+ books), Attendance Tracking (800+ students), and Timetable Generation using Genetic Algorithm optimization</li></ul>	
<b>YouTube Chat RAG AI</b>   <i>LangChain, LangGraph, Vector Database, Streamlit</i>	<i>Dec. 2025</i>
<ul style="list-style-type: none"><li>Implemented end-to-end RAG (Retrieval-Augmented Generation) pipeline with MMR (Maximal Marginal Relevance) retrieval algorithm for generating diverse, contextually relevant responses from YouTube video transcripts</li><li>Designed LangGraph state machine architecture with SQLite-based checkpointing system for maintaining persistent conversation context across multiple user sessions</li></ul>	
<b>Flask K8s App with CI/CD</b>   <i>Flask, Kubernetes, Docker, GitHub Actions</i>	<i>Jan. 2026</i>
<ul style="list-style-type: none"><li>Deployed Flask application on 3-node Kind cluster with self-hosted GitHub Actions CI/CD pipeline for automated testing, building, and deployment to local Kubernetes environment</li></ul>	
<b>Stateful AI Chatbot</b>   <i>LangChain, LangGraph, SQLite</i>	<i>Dec. 2025</i>
<ul style="list-style-type: none"><li>Engineered stateful AI chatbot leveraging SQLite checkpointer for conversation persistence and LangGraph for complex multi-turn dialogue state management</li></ul>	

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, C, SQL  
**Backend & Frameworks:** Flask, FastAPI, Node.js, Streamlit  
**AI/ML & LLM:** LangChain, LangGraph, RAG, Vector Databases  
**Databases & Caching:** MySQL, PostgreSQL, SQLite, Redis  
**DevOps & Tools:** Docker, Kubernetes, GitHub Actions, NGINX, Celery, Git, Pandas  
**Other:** Web Scraping (Selenium, Scrapy, BeautifulSoup)

## CERTIFICATIONS & ACHIEVEMENTS

**Certifications:** Advanced Python Bootcamp (Udemy), Web Scraping (Selenium, Scrapy, BeautifulSoup)  
**Achievements:** HackerRank Coding Extravaganza Challenge – Certificate of Participation