Archit Aggarwal

Data Scientist / Software Developer

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Portfolio
Github
Linkedin

Tech-driven Electronics and Communication Engineering student with expertise in software development, data analysis, and AI applications. Proficient in Python, C++, SQL, and API development, with hands-on experience in building scalable web solutions, real-time dashboards (Power BI, MySQL), and AI-powered chatbots. Passionate about automation, data-driven decision-making, and optimizing system performance. Proven ability to develop efficient algorithms, integrate APIs, and deploy production-ready applications.

EDUCATION

B.Tech in Electronics and Communication, *Maharaja Surajmal Institute of Technology* — 2021 - 2025
Class 12 and Class 10 (CBSE), *Bharti Public School* — till 2021

EXPERIENCE

Research and Development Intern — **Jul'24 - Aug'24**
HAIER Appliances Pvt Ltd

- Developed data pipelines to analyze PCB manufacturing datasets for defect detection and efficiency optimization.
- Designed automated Power BI dashboards and MySQL queries to enable real-time monitoring of PCB metrics.
- Reduced data processing time by 30% through algorithmic optimization and efficient ETL design.

Trainee — **April 2023**
Centre for Development of Advanced Computing

- Engineered UAV control software by integrating Python-based SDKs with drone sensor systems.
- Developed and tested autonomous UAV flight algorithms, improving stability and obstacle avoidance accuracy.
- Gained practical exposure in embedded systems, sensor fusion, and real-time system design for drones.

PROJECTS

Dynamic SQL Query Automation — **Oct'23 - Dec'23**

- Developed a robust Python-based CLI application to dynamically execute CRUD operations on MySQL databases using mysql-connector.
- Modularized SQL logic into reusable helper classes for streamlined insert, update, delete, and fetch functionalities.
- Implemented input validation, error handling, and logging to reduce query failures and improved the developer experience.
- Achieved 90% reduction in manual SQL query writing, enabling faster database prototyping and improved back-end productivity.

GENIFYSUITE — **Aug'24 - Sep'24**

- Built a responsive full-stack web app using HTML, CSS, JavaScript, and integrated tools such as credit card generators, validators, and IP locators.
- Integrated third-party APIs for IP-based content generation and location intelligence.
- Designed adaptive UIs with responsive layouts and robust client-side validation across platforms.
- Developed reusable front-end components to streamline mock content creation and layout testing workflows.

MORPHIE — **Sep'24 - Nov'24**

- Engineered an AI chatbot using Flask, OpenAI APIs, and JavaScript to generate design layouts and color palettes based on user input.
- Implemented NLP-driven prompt classification to improve user query understanding and automate structured API responses.
- Developed a modern, theme-aware UI with scroll animations and advanced UX transitions.
- Delivered AI-based web assistant features that enhanced user interaction through dynamic API-driven design generation.

SKILLS

Programming:	Python, C++, SQL, JavaScript, C#
Data & Analytics:	Power BI, PostgreSQL, MySQL, Excel
Development Tools:	VS Code, MATLAB, APIs, Git, Apache
AI & Automation:	Chatbot Development, NLP, Data Processing

ACHIEVEMENTS

- Secured a global rank of 17 in the coding-ninjas weekly contest dated | 1853 rated at leetcode
- State-Level Basketball Player | 1st Position in Inter-Zonal & Zonal Level
- Among Top 5% in CBSE (Class XII)
- School Rank 1 in International Science Olympiad (ISO)