

Ankit Kumar Singh

Machine Learning Engineer | Backend Developer | India

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Summary

Machine Learning Engineer and Backend Developer pursuing B.Sc in Computer Science and Data Analytics at IIT Patna. Passionate about leveraging Python, SQL, and backend architecture to build scalable systems and intelligent models. Experienced in building modular software solutions, API integrations, and automation tools; utilizing data analysis primarily for data preprocessing, feature engineering, and model training.

Skills

- **Programming:** Python (Primary), SQL, JavaScript (Foundational), HTML, CSS
- **Machine Learning & AI:** Scikit-Learn, Predictive Modeling, Clustering (BIRCH, K-Means), Data Preprocessing, Feature Engineering
- **Backend & Deployment:** FastAPI, REST APIs, Git, GitHub, Linux/Unix, Agile Development, Cloud Deployment
- **Data Analysis:** Pandas, NumPy, Seaborn (Data preparation, EDA, and preprocessing in ML workflows)

Education

B.Sc in Computer Science and Data Analytics

[Indian Institute of Technology, Patna](#) | Dec 2024 – Dec 2027

- Academic CPI: 9.41/10.0 | Consistently ranked among top performers in the batch.

Experience

Python Developer — Freelance | 2024 – Present

- Architected custom automation scripts and productivity tools using Python, reducing repetitive task time by an estimated 20% for personal and client workflows.

Projects

[GitAuk \(GitHub Repo Tools\)](#)

- **Idea:** A Python-based repository health analysis tool that automates the evaluation of repository maintenance status.
- **Key Implementation:** Engineered a robust backend using asynchronous processing for high-performance data retrieval and real-time dashboard rendering; implemented a weighted heuristic scoring algorithm analyzing commit frequency, issue response times, and contributor activity via the GitHub REST API.
- **Impact:** Quantified maintenance metrics for 50+ repositories, improving developer decision-making speed by removing manual evaluation latency.
- **Tech Stack:** Python, GitHub REST API, Asynchronous Programming, Backend Data Parsing.

[Toolkit \(Modular Desktop Ecosystem\) | 1st Year Project](#)

- **Idea:** A scalable modular PyQt6 desktop framework featuring an integrated application system for dynamic sub-app deployment.
- **Key Implementation:** Developed a command-driven architecture and real-time process monitoring for concurrent workflow execution, designed a decoupled modular layout to optimize app lifecycle management and minimize dependency conflicts, and built scalable backend service architectures with FastAPI.
- **Impact:** Streamlined deployment processes, reduced modular dependency conflicts, and enabled high-performance execution of concurrent desktop workflows.
- **Tech Stack:** Python, PyQt6, FastAPI, Containerized/Cloud Backend Deployment.