

# Akshat Nigam

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## PROFILE

Final-year Computer Science undergraduate with a strong foundation in secure software engineering, backend systems, and applied AI. Experienced in building scalable, testable applications using Java, Spring Boot, and Python, following Agile and CI/CD practices. Skilled at designing robust RESTful APIs, implementing authentication and authorization, and applying design patterns to improve code quality and maintainability. Passionate about writing clean, well-documented code, improving system reliability.

## EDUCATION

**Thapar Institute of Engineering and Technology**  
*Bachelor's of Technology in Computer Science and Business System*

Patiala, Punjab  
Sep 2022 - Present

## COURSES AND CERTIFICATIONS

**Data Analysis with Python**

*Certificate Link*

IBM

Grade: 92%

**Natural Language Processing**

*Certificate Link*

DeepLearning.AI

Grade: 97.72%

## PROJECTS

**Athletica AI** | Java, Spring Boot, Docker, MongoDB

Oct 2025

- Engineered a secure, **Spring Boot microservice architecture** integrating **Eureka, API Gateway, and Keycloak (OAuth2)** to enable authenticated REST API communication and horizontal scalability.
- Developed an **AI-driven recommendation service** using **RabbitMQ, MongoDB, and Google Gemini API**, following asynchronous messaging patterns for efficient task distribution.
- Implemented **GitFlow branching** and automated build/deploy pipelines with **GitHub Actions CI/CD** and Docker Compose, achieving reproducible, containerized deployments on **AWS EC2**.

**FinSync** | Python, NLP

May 2025 – Jun 2025

- Developed an AI-driven **multi-agent orchestration system** enabling users to query their accounting data (QuickBooks, Zoho Books) through natural language.
- Designed **NLP pipelines** for intent detection and entity extraction, translating user queries into precise financial data retrieval and summarization tasks.
- Integrated QuickBooks/Zoho APIs with **async execution (AsyncIO)**, ensuring low-latency, real-time responses during multi-query sessions.

**xAnalysis** | Python, HuggingFace

October, 2024

- Developed a real-time Twitter analysis platform that scrapes tweets using **Selenium** and provides actionable insights on user-selected topics.
- Integrated **HuggingFace Transformers** to gauge user sentiment, **RAG (Retrieval-Augmented Generation)** for summarizing large sets of tweets effectively, and **LDA (Latent Dirichlet Allocation)** for advance topic modeling, categorizing tweets into themes.
- Built an interactive dashboard to visualize user engagement metrics, trending topics, sentiment analysis, and topic-specific summaries.
- Demonstrated use cases such as brand monitoring, competitor analysis, and issue categorization with data-driven visualizations.

## TECHNICAL SKILLS

**Languages:** HTML/CSS, Python, Java, JavaScript, SQL

**Frameworks:** SKlearn, TensorFlow, HuggingFace, React, SpringBoot, Langchain

**Tech Stack:** Data Science, Deep Learning, Generative AI, Full-Stack Development, DSA

## ACHIEVEMENTS

**SatHack 2024:** 1st Place in Open Innovation category.

**Amazon ML Challenge 2024:** All-India Rank 273 among 80,000+ participants.

**Adobe Gen AI Hackathon 2024:** Ranked top 5% nationwide.