Siddharth Ranjan

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Summary

Java developer with solid foundation in **Spring Boot**. Strong interest in exploring the capabilities of **Generative AI** and **Machine Learning**.

Education

Vellore Institute of Technology — Chennai, India
Masters in Computer Applications; CGPA: 9.42 — *July 2023 – May 2025*

Patna Science College — Patna, India
Bachelors in Computer Applications; CGPA: 8.64 — *June 2019 – Dec. 2022*

Experience

Research and Development Intern — Aug 2024 – May 2025
Nokia

- Developed a comprehensive web solution to streamline the management and visualization of test results, reducing management workflow by **30%** through automation and centralized reporting. Developed a dynamic image generation script to visualize the configuration change of the test case.
- Delivered **multiple fixes** within bound time.
- Contributed to the testing and development of an in-progress tool made by the team.
- **Technologies: openGrok**, **markdown**, **tomcat**, **mercurial**, **python**, **flask**

Projects

Movie Reservation System [GitHub] — Aug 2025 – Aug 2025

- Designed and built a backend service for a movie reservation system using **Spring Boot**, featuring secure **JWT-based** authentication and role-based access control (USER/ADMIN).
- Implemented a modular architecture with **Spring Modulith** to ensure low coupling, and used event-driven communication for asynchronous updates to showtime seat availability.
- **Technologies: Java**, **Spring Boot**, **Spring Security**, **JWT**, **Spring Modulith**

Chat with PDF using Gemini [GitHub] [Live] — Feb 2024 – Feb 2024

- Built a web application with **Streamlit** that allows users to upload PDFs, extract text, and query the content using **AI-powered embeddings**.
- Automated PDF text extraction and enhanced information retrieval, enabling faster and more efficient document analysis.
- **Technologies: Streamlit**, **Langchain**, **Google Generative AI API**, **FAISS**

Achievements

- **CODATHON:** Led a winning team of **5 members** in **36 hours** hackathon organized in VIT Chennai.
- **RESEARCH:** Performance Assessment of Various Machine Learning Algorithms in Recommendation — Authored a paper comparing ML algorithms (**SVD++**, **SVD**, **k-NN**) for movie recommendation systems. Experimentally proved SVD++ provides a lower error rate using **MAE** and **RMSE** metrics on the MovieLens dataset. (Aug 2023 - Nov 2023)
- **DATAQUEST: 2nd Runner Up** in **8+ hours** Machine Learning hackathon organized by Data Science Club in VIT Chennai.
- **SCIENCE EXHIBITION:** Won intra-school science exhibition for demonstrating wireless transmission of electricity.

Technical Skills

Languages: **Java**, **Python**, **MySQL**
Frameworks & Libraries: **Spring Boot**
Tools: **IntelliJ IDEA**, **SQL Workbench**, **Vertex AI Studio**, **VS Code**