

Satyam Swarnakar

Phone: +916261360425

Email: satyam.swarnakar2024@nst.rishihood.edu.in

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PROFESSIONAL SUMMARY

Passionate B.Tech student exploring the intersections of Applied AI and Backend Engineering to solve real-world data challenges through stateful agentic workflows. Observed and rectified complex information retrieval issues by investigating RAG pipelines and multi-agent systems using tools like Python and LangChain. Dedicated to continuous growth, currently evaluating diverse paths across AI research and scalable machine learning to build impactful, human-centric software solutions.

EDUCATION

Bachelor of Technology (Artificial intelligence)	2024 - 2028
Newton School Of Technology, Rishihood University	Grade: 6.479/10.0

Intermediate (Class XII)	2022 - 2023
Dav Ispat Senior Secondary Public School, Dallirajhara	Grade: 65.4%

Matriculation (Class X)	2020 - 2021
Dav Ispat Senior Secondary Public School, DalliRajhara	Grade: 94.2%

PROJECTS

Multi-Agent Financial Analyst System ([Github](#)) ([Demo](#)) January 2026

- Observed the complexity of tracking fragmented market data and picked this technical project to explore how autonomous agents can simplify research for beginners by investigating the coordination of multiple LLMs effectively.
- Investigated stateful agent graphs while facing **technical** challenges in synchronizing live news data which was rectified by exploring **LangChain** and **effective** tool integrations to ensure memory handling was consistent across the workflow.
- Integrated **yFinance** and **DuckDuckGo** to automate research into a single **Streamlit** dashboard, achieving stable production deployment through secure environment management and exploring the nuances of robust backend stability.

Fin-Insight AI (Mutual Fund RAG Analyzer) ([Github](#)) ([Demo](#)) January 2026

- Noticed the difficulty in navigating dense 50-page mutual fund PDFs and chose to build this innovative tool to explore how RAG systems can improve financial literacy by investigating automated information retrieval methods extensively.
- Leveraged **LangChain** and **FAISS** for vector storage while investigating dependency conflicts that occurred during deployment, which were rectified to ensure a smooth user experience while exploring deeper into the financial text.
- Achieved a functional pipeline that significantly reduces document review time by providing grounded responses, allowing for the observation of AI potential utility in making sensitive financial data far more accessible to average investors.

Nex Guild – Full-Stack Web Platform ([Github](#)) ([Demo](#)) November 2025

- Observed a lack of dedicated networking spaces for tech professionals and picked this valuable new project to explore building a community-driven platform to investigate how practical full-stack engineering supports various peer growth.
- Engineered a REST API using **Node.js** and **Express** while facing performance bottlenecks which were rectified by migrating to a Vite-based workflow, allowing for the exploration of secure authentication using **JWT** and **Bcrypt**.
- Optimized build times by 40% and successfully deployed the platform to observe real-world user interaction and feedback loops, helping to understand the technical importance of efficient development cycles and modern user-centric design.

CERTIFICATIONS

UI/UX Hackathon Rishihood University ([Link](#)) November 2025
Prototyped high-fidelity Figma interfaces to explore usability and user-centric design within a competitive timeframe.

SKILLS

Computer Languages: SQL, JavaScript, CSS, HTML, Python

Software Packages: MongoDB, MySQL, Excel, React, Tailwind CSS, Next.js

Soft Skills: Presentation Skills, People skills, Responsibility, Time management, Team Building, Public speaking

Others: Hugging Face, GitHub Actions, OpenAI API, Problem-Solving, Spreadsheet, Entrepreneurship, Git and Github

EXTRA-CURRICULAR ACTIVITIES

AIRIS (AI Research and Innovation Society) — Active member involved in AI research discussions, innovation-driven initiatives, and exploration of emerging technologies through collaborative learning ,events and technical knowledge sharing.