

# Nikhil Yadav

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## Education

<b>Motilal Nehru National Institute of Technology Allahabad</b> <i>B.Tech in Electronics and Communication Engineering</i>	2024 – 2028 CPI: 8.73 till Sem 2
<b>Patanjali Rishikul, Prayagraj</b> <i>CBSE Class XII</i>	2023 Percentage: 94%
<b>Patanjali Rishikul, Prayagraj</b> <i>CBSE Class X</i>	2021 Percentage: 96%

## Projects

### VulnCraft — DevSecOps Security Automation Platform

- Built at Hack36 9.0, 2025 — an AI-driven DevSecOps platform featuring a React Flow-based drag-and-drop orchestration system for designing complex sequential and parallel vulnerability testing workflows.
- Delivered an end-to-end GitHub-integrated security lifecycle, automating vulnerability detection, issue creation, PR validation, webhook-driven redeployments, and post-fix re-verification for continuous security assurance.
- Implemented scalable DAST capabilities and integrated leading security tools (Nmap, Nikto, SQLMap, WPScan, OWASP ZAP, etc.) via modular Dockerized microservices, enabling real-time, containerized analysis even for non-deployed code.

### CoPilotX – Multi-Agent AI Startup Workspace

- AI agents (CEO, CTO, CMO, CFO) collaborate in a Slack-like UI to help users build and grow startups.
- Tech stack: React, LangGraph, Mermaid, Markdown
- Designed agents with distinct roles using LangGraph + ReAct workflows.
- Implemented export system to auto-generate ZIP packs with business plans, slides, logos, and tech specs.

### Contextual File Searcher (MCP)

- Developed a Model Context Protocol (MCP) tool for intelligent file discovery using semantic and keyword relevance.
- Built with Python, Sentence-Transformers, PyPDF2, Openpyxl, and FastMCP; supports diverse formats.
- Implemented hybrid scoring combining semantic similarity, filename matching, and keyword.

## Technical Skills

**Programming Languages:** Python, C, C++, HTML5, CSS3, JavaScript

**Frontend Technologies:** React.js, Next.js, HTML5, CSS3, Tailwind CSS, Redux, Three.js, React Three Fiber

**Backend Technologies:** Node.js, Express.js, MongoDB, PostgreSQL, Supabase, Redis, FastAPI, Cloudinary

**Machine Learning & AI:** TensorFlow, Scikit-learn, Pandas, NumPy, OpenCV, Deep Learning, LangChain, LangGraph

**DevOps & Tools:** Git, GitHub, Docker, Postman

## Positions of Responsibility

- **Web Team, Entrepreneurship Cell (E-Cell), MNNIT:** Contributed to the development of *RENAISSANCE*, the official event website.
- **Student Mentor** Student Mentorship Program (SMP), MNNIT

## Achievements

- **First Place:** Turing's Playground (CaptchaCracker, Feb 2025), RoboSoccer (Avishkar, Nov 2024)
- **Second Place:** Hacktivate (SafeStride, Apr 2025)
- **Rank 8:** Hack36 9.0 — Team UnFazed secured 8<sup>th</sup> position in MNNIT's annual flagship hackathon.