

Nishant Verma

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LinkedIn — GitHub — Portfolio

Education

- **Indian Institute of Technology, Bhilai**
B.Tech in Data Science and Artificial Intelligence Oct 2022 - Present
- **Seventh Day Adventist Senior Secondary School, Lucknow**
High School April 2018 - March 2019
Intermediate School April 2020 - March 2021

Experience

- **VPN Performance Automation** May 2025 - June 2025 — IIT Bombay
 - Automated the usage of commercial VPN applications on Windows using AutoHotKey scripts and UI Automation (UIA) for GUI interaction, enabling hands-free testing workflows.
 - Designed automation flows for tasks like connection setup, running performance scripts, and disconnection.
 - Collected runtime metrics (latency, throughput, speed, and logs) for analysis.
 - Streamlined VPN testing operations to improve reliability, repeatability, and performance efficiency.
- **Project Intern** May 2025 - June 2025 — IIT Bhilai & C-DAC India
 - Modified the official StrongSwan Android VPN client to support Pre-Shared Key (PSK) authentication.
 - Performed testing and validation of PKCS#11 functions for the TrusToken project, ensuring secure cryptographic operations.
- **Software Development Intern** May 2024 - June 2024 — IIT Bhilai
 - Engineered a Flutter-based attendance application for over 800 students.
 - Integrated an indigenously developed USB token for secure login and data capture from the ID card.
 - Utilized NFC technology and NDK for seamless interaction with the USB token.

Projects

- **CodePilot (VS Code Extension)** [GitHub]
 - Developed with TypeScript, HTML, CSS; enabled coding help via Ollama (local LLM).
 - Created an intuitive interface to boost developer efficiency in VS Code.
 - Ensured privacy and performance via local AI execution.
- **NPM Package: Text Editor** [GitHub]
 - Developed a pre-configured text editor based on the TipTap editor.
 - Implemented core functionalities using TypeScript and customized the layout with CSS.
- **Agentic RAG with Pathway (InterIIT 13 HP3)** [GitHub]
 - Built a web-based AI assistant supporting chat and voice queries.
 - Backend: Flask + Socket.IO for document retrieval, file parsing, and live responses.
 - Frontend: React + markdown support + speech-to-text interaction.
- **SAR Image Colorization** [GitHub]
 - Implemented a research paper on SAR Image Colorization for the ML project.
 - Developed the whole architecture and trained the model on 6000+ images.
 - Achieved high scores on PSNR and SSIM metrics.
- **Quiz App in Flutter** GitHub Link
 - Developed a comprehensive quiz app using Flutter, Node.js, and a React.js admin panel.
 - Included subject-wise, JEE, and NEET-based tests with time-bound limits.
 - Integrated Google OAuth and AWS for authentication and storage.
- **Retrieval Augmented Generation using LLM** [GitHub]
 - Built a document chat interface using HuggingFace API, LangChain, and Streamlit in Python.
 - Allowed users to chat with uploaded documents or web pages.

Skills

- **Languages:** JavaScript, TypeScript, C, Python, Dart
- **Tools/Technologies:** HTML, CSS, React.js, Node.js, Express.js, Tailwind, Android Studio, AWS, HuggingFace, LangChain, Scikit-learn, Flutter, GCP, Firebase, Git, GitHub
- **Databases:** MongoDB, MySQL
- **Others:** Communication, Problem-Solving, Debugging, Teamwork

Certifications

- Completed Basics of Ethical Hacking Course on Udemy