Nakul Singh

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EDUCATION

Degree	Institute	Board / University	CGPA/Percentage	Year
B.Tech MECH	Visvesvaraya National Institute of Technology, Nagpur	VNIT Nagpur	6.45 (Till 6th Sem)	2021-2025
Class XII (HSC)	St. Peters College, Agra	ISC	90%	2020
Class X(SSC)	St. Peters College, Agra	ICSE	88%	2018

EXPERIENCE

- **Axio Energy** — *June 2024 - July 2024*
  Frontend Developer Intern — Remote
  - The goal of the work allotted was to develop a dashboard with auth enabled to facilitate users to trade and analyse various aspects of battery/energy trading in Germany
  - Successfully deployed a frontend i.e. dashboard that uses *MaterialUI* for the various components, resolves api calls from Django in backend to display the information according to the users requirement using *Chart.JS*

PROJECTS

- **Remote Access Trojan (RAT)** — *June 2024 - July 2024*
  Cybersecurity Project
  - The goal of this project was to develop a Trojan that can be installed in any android device and may facilitate remote access to that device
  - Successfully managed to create an exploit using *Metasploit* that establishes a reverse tcp connection to facilitate access remotely while dodging google play security
  - Was able to dump call log, sms, active directory traversal and also managed to play random audio remotely on the device

- **Autonomous Lane Following Robot** — *July 2022 - September 2022*
  Robotics Project — Github Link
  - The goal of this project was to develop a movable robot that could autonomously travel between lanes using real-time video input from a fixed camera
  - I processed the video with OpenCV to identify the lanes using Canny Edge Detection and Hough Line Transform. Once I had the two lanes, I created an algorithm to guide the TurtleBot based on the slope of the lines
  - Successfully steered the TurtleBot within lanes with sharp edges

- **Tijori** — *June 2020 - July 2020*
  Java Application — Github Link
  - To build a GUI password manager that generates random passwords and stores them locally in encrypted files
  - Used Java *Math.random()* function to generate the passwords and made the GUI using *JavaSwing* class
  - Final application now generates random password of desired length and stores them locally with AES encryption which can only be accessed with a master password

TECHNICAL SKILLS

- **Programming Languages**: Python, Java, C, SQL, Bash
- **Softwares**: VS Codium, BurpSuite, Wireshark, nMap, Metasploit
- **Operating Systems**: Windows, Linux
- **Tools**: Awk, Sed, Grep, ST, DWM
- **Frameworks**: Numpy, Pandas, Flask, React, Django

CERTIFICATIONS

- **Google Cybersecurity Specialization**: Coursera — Link
- **Python Essentials I**: Cisco — Link
- **Introduction to Cybersecurity**: Cisco — Link
- **Digital Forensics Essentials**: EC-Council — Link

POSITIONS OF RESPONSIBILITY

- **President**: Shell, Cybersecurity Club VNIT — July 2023 - Present
- **Workshop Head**: IvLabs, Robotics Club VNIT — July 2023 - Present

LANGUAGES

- **English**: Professional Working Proficiency
- **Hindi**: Native Proficiency