# LAKSHIT VERMA

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#### **EDUCATION**

Manipal Institute of Technology, Manipal, Karnataka

Bachelor of Technology — Electronics Engineering (VLSI Design & Technology)

Kendriya Vidyalya, JNU NMR Campus

All India Senior School Certificate Examination (AISSCE)

All India Secondary School Examination (AISSE)

July 2023 – August 2027

March 2020 – July 2022

83.8% (419/500)

91.8% (459/500)

### **SKILLS**

Languages Python, C, C++, Bash, Verilog HDL, System Verilog, HTML, CSS, Javascript, IATFX

Tooling Git, Docker, Make, IDA, Ghidra, Wireshark, Volatility, GDB, Cadence Xcelium, Xilinx Vivado

Coursework VLSI Design, Computer Organization and Architecture, Embedded Systems, FPGA Design using Verilog

Soft Skills Leadership, Employee Training, Teamwork, Effective communication

#### **ACHIEVEMENTS**

• Awarded First Position and 100,000 INR in the Smart India Hackathon 2024, under PS 1749 — Recovery of Data and associated Metadata from BTRFS and XFS filesystems.

- Awarded First Position and 25,000 INR in the GIT X IITB CTF organized by the KLS Gogte Institute of Technology, Belagavi in collaboration with IIT Bombay Trust Lab.
- Awarded First Position and 15,000 INR in the KJSCE CTF organized by KJ Somaiya College of Engineering Codecell.
- Awarded Second Position and 10,000 INR in the SoftLaunch Hackathon organized by Finova, the fintech club of MIT Manipal, and the MIT Manipal Innovation Centre.
- One of 5 finalists among 80 applicants for Cython 2024, a hackathon organized by FITT, Indian Institute of Technology Delhi.

#### TECHNICAL EXPERIENCE

Team Member

January 2024 - Present

Cryptonite

Manipal, Karnataka, India · On-site

- Extensively played CTFs in the Forensics and Reverse Engineering category.
- Team ranked #1 nationally in 2025 and #3 in 2024 on ctftime.org.
- Created 2 challenges in my domains for niteCTF 2024, the team's annual CTF. **3rd highest rated** Indian CTF on ctftime.org with 39.87 points. **IITB Trust Lab was the title sponsor.**
- Lead 20+ Junior Members in the development and running of the team's OASIS CTF, an intra-college, entry level cybersecurity competition with 499 participants across 218 teams.
- Currently mentoring 8 Junior Members as the Forensics Domain mentor.
- One of 16 selected amongst 600+ task phase members.

#### Core Committee Member

November 2023 - October 2024

Manipal University ACM Chapter

Manipal, Karnataka, India · Hybrid

- Worked on the creation of Classified, the chapter's ML workshop with 100+ participants. Contributed to the dataset used, presentation material and doubt clearing of students.
- Tuned the dataset for Epoch 2024, the chapter's seminal machine learning contest with over 300 entries.
- One of 75 to be selected among 750+ applicants.

# $\frac{\text{PROJECTS}}{\bullet \text{ NiteWatch}}$

## - Winning project for SIH 2024.

Python, PyQT, BTRFS, XFS, EnCase, DFIR, Blue Teaming

- Codebase currently proprietary and under review by the Government of India.
- Developed a tool that allowed users to recover data and metadata from BTRFS and XFS filesystems.
- Parses the BTRFS filesystem through its root nodes from scratch, using no external libraries.
- Uses an efficient memoization algorithm for reading the chunk data and metadata.
- Upto 75% recovery for files and tested with files upto 10GB.
- Works for both raw .img and EnCase .E01 filesystem images.

#### • YatraGPT

React, Gemini API, Typescript, NextJS

- Link: yatragpt.vercel.app
- An AI travel assistant that allows users to plan their trips using the Gemini API.
- Uses the IRCTC API to search for the best train tickets.
- Implements a backtracking approach to find the best train route when no close stations are available.