# LAKSHIT VERMA

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#### **EDUCATION**

Manipal Institute of Technology, Manipal, Karnataka

July 2023 – August 2027

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

Kendriya Vidyalya, JNU NMR Campus

All India Senior School Certificate Examination (AISSCE)

All India Secondary School Examination (AISSE)

March 2020 - July 2022 83.8% (419/500)

91.8% (459/500)

## **SKILLS**

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

**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 • Extensively played CTFs in the Forensics and Reverse Engineering category. Manipal, Karnataka, India · On-site

- Team ranked #2 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.

# **PROJECTS** • 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.