

# Sylan Padmakumar

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## EDUCATION

### VIT Bhopal University

BTech

Major in Computer Science Engineering, specialization in Cyber Security and Digital Forensics

- **CGPA:** 8.48/10 (up to 5 semesters)
- **Technical skills:** Python, C++, Rust, C, Linux

Bhopal, Madhya Pradesh

Expected Graduation 2026

## OBJECTIVE

As an innovative second-year Computer Science student with specialization in Cyber Security and Digital Forensics, I am eager to bring my skills and passion for cutting-edge technology to the job. My academic foundation combined with a keen interest in programming, cyber security, and designing architecture for high-performance systems positions me to contribute meaningfully to innovative projects. I am ready to leverage my knowledge in cyber security to develop secure, efficient, and scalable solutions. Seeking an opportunity to collaborate with industry-leading professionals with whom I can further hone my technical expertise and contribute to pioneering advancements in technology.

## EXPERIENCE

### Freelance Python Developer

Jul 2023 - Aug 2023

- Engineered and deployed a Flask and JavaScript application to automate the California Psychological Inventory questionnaire; streamlined data collection and analysis processes, reducing the manual input time by 75% for a renowned psychologist.
- The questionnaire consisted of over 300 true or false questions.
- Based on the answer to the question, it modified the value of 18 different personalities.
- The results were then graphed using Matplotlib in Python and emailed to the admin via SMTPlib (Python) running on a custom SMTP server.

## PROJECTS

### Static and Dynamic Analysis of Malware Samples

Aug 2023 - Oct 2023

- Analysis of malware samples using Static and Dynamic analysis techniques.
- Static techniques used were strings output, PE Header and API calls done by the malware.
- Dynamic techniques used were Remnux (Linux Distro), INetSim, WireShark and Process Monitor to analyze the malware after detonation on FlareVM.
- Analyzed 4 different types of malwares with an emphasis on the WannaCry ransomware.
- Submitted a research paper based on the findings.

### Malware Reverse Engineering with Ghidra

Mar 2024 - May 2024

- Reverse engineering of malware samples with the help of various scripts written in both Python and Java.
- Used Ghidra to reverse engineer malware samples belonging to Trojan and Ransomware families.
- Wrote scripts in Python to collect and identify malicious strings from any given binary; used this information to identify functions performing malicious activities.
- Used tools present in Ghidra such as Function Graph, Symbol Tree, Strings output and several others to aid with our analysis of malware.

## SKILLS

**Languages:** Fluent in English and Tamil; Limited working proficiency in Hindi.

**Honors and Awards:** Recognised as One of the Top 5 Projects (Malware reverse engineering) in Project Expo in 1st Industry Conclave 2024, VIT Bhopal.

**Certifications & Training:** The Bits and Bytes of Computer Networking (Google), Python Essentials (Vityarthi), Learning Linux Command Line (LinkedIn), Raspberry PI and python-based automation system design (IIT-M), Foundations of Cyber Physical Systems (NPTEL), EC Robotics Technology level – 1, 2, 3 (ECIL, Government of India).