

# Manan Punatu

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## SUMMARY

Software Developer proficient in Java, Python, and C with 1+ years of experience in network security and machine learning, and hands-on exposure as a security researcher. Committed to delivering innovative solutions through collaborative teamwork and continuous learning.

## EDUCATION

DIT University	<b>CGPA: 7.55</b>
<i>Bachelor of Technology in Computer Science and Engineering</i>	<i>Graduation Date: May 2025</i>

DAV Lakkar Bazar	<b>Percentage: 94.8</b>
<i>Senior Secondary School</i>	<i>Graduation Date: Apr 2021</i>

## SKILLS

- **Programming:** Java, Python, C, HTML, CSS, MySQL
- **Security Tools:** Wireshark, Nmap, Burp Suite, Metasploit, Ghidra, Postman, Sleuth Kit, Autopsy
- **Operating Systems:** Windows, Linux, MacOS

## PROJECT EXPERIENCE

### IDPS with Advanced Machine Learning

*Cybersecurity / Machine Learning (ML) / Python*

- Developed an Intrusion Detection and Prevention System (IDPS) using FastAPI, Scapy, and a Res-CNN model with Reptile++ meta-learning, achieving 98% anomaly detection accuracy on 54 network features, processing 10 packets/second, and enabling real-time IP management with Snort on Windows.

### ML-Firewall: RandomForest Firewall Automation

*Cybersecurity / Machine Learning (ML) / Python*

- Developed an automated firewall management system using a RandomForest classifier, achieving 95% accuracy in detecting and mitigating network threats on 10 critical features, with real-time diagnostics via comprehensive logging for enhanced security.

### LeafLens: Leaf Identification System

*Machine Learning (ML) / Python / Bash*

- Engineered a leaf identification system using an Xception model, achieving over 90% accuracy across 83 species and 10,000+ images, with real-time camera integration for enhanced ecological monitoring and user engagement.

## ACHIEVEMENTS

- Secured Top 50 position in NCIIPC-AICTE Pentathlon 2025 Grand Finale (36 hours, offline), competing against 200 finalists selected from over 22,000 participants in a national critical infrastructure and advanced pentesting CTF.

## CERTIFICATIONS

Google Cybersecurity Specialization | Ethical Hacking Essentials (EHE) | Digital Forensics Essentials (DFE) | Complete Ethical Hacking Bootcamp (Zero to Mastery) | Postman API Fundamentals | Introduction to Cybersecurity