

Siddharthan T V

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Project Work

FlucidOS — Bare-metal Linux Distribution (2025 - Present):

- Engineered a from-scratch Linux distribution to eliminate bloat, achieving a highly optimized ~3.0 GB footprint and ~504 MB idle RAM.
- Developed *flappy*, a C-based package manager using .pkg.tar.zst archives, delivering ~25% faster decompression than .tar.xz and .deb.
- Minimized attack surface and achieved ~5s boot times by customizing kernel configurations and optimizing systemd.
- Architected bare-metal core operations by directly implementing low-level process, memory, and service isolation management.

Tech Stack: C, Linux Kernel, systemd, GRUB, Linux-PAM, GNU Coreutils, Bash

Flurecon — Stateful Packet Inspection & LAN Threat Detection Engine (2026):

- Engineered a stateful packet inspection engine for real-time LAN analysis to counter internal threat vectors, optimizing visibility into unauthorized lateral movement.
- Implemented concurrent TCP flow tracking and stream reconstruction to resolve visibility blind spots in live network traffic, enabling deep packet analysis.
- Parsed raw network packets to profile per-device behavior, establishing behavioral baselines to automatically isolate anomalous host activity.
- Developed high-performance threat detection modules, alerting on active network scans and DoS patterns to mitigate subnet compromise.

Tech Stack: Rust, libpcap, pnet, etherparse, ARP, IEEE OUI

Skills

Languages: Python, Bash, C, C++, X86_64 Architecture

Systems: Ubuntu, RHEL, GNU GCC, GDB, Objdump, Linux Kernel, QEMU, KVM, Linux Virtualization

Networking: TCP/IP, DHCP, ARP, DNS, SSH, HTTP/HTTPS, VPN, Packet Analysis, Network Troubleshooting

Tools: Docker, MySQL, Apache, Nginx, Git, GitHub, Vim, Nano, VS-code

Education

Sri Venkateswaraa College of Technology, Chennai

B.E in Computer Science Engineering (AI & ML)

Sep 2024 - Present (Expected May 2028)

CGPA: 7.89

Saint Francis de Sales Matriculation Higher Secondary School, Pudukkottai

Higher Secondary (Mathematics, Physics, Chemistry and Computer Science)

Jun 2010 - Mar 2024

Percentage: 70%

Awards and Certificates

- Certificate of Distinction - K7 Academy Cybersecurity Workshop (UmagineTN 2026)