YUVRAJ MAHILANGE
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SUMMARY

Self-driven systems engineer, cybersecurity enthusiast, and reverse engineering researcher with a strong foundation in Linux internals, system automation, distributed computing, and technical problem-solving. Passionate about deeply understanding how software, hardware, and networks operate—then optimizing, breaking, rebuilding, and securing them. Experienced in building high-performance Linux environments, analyzing complex software systems, writing automation tools, and exploring offensive security fundamentals. Currently pursuing MCA while running independent research, home-lab experiments, and technical projects driven by curiosity, not obligation.

EDUCATION

Master of Computer Applications (MCA) — Reva University, Bengaluru
Expected Graduation: 2026

Bachelor of Computer Applications (BCA) — Hemchand Yadav University, Chhattisgarh
Completed: 2024

Higher Secondary (10+2), Commerce Stream — CBSE Board
Completed: 2021

TECHNICAL SKILLS

Cybersecurity & Networking: Linux security, network fundamentals, packet analysis, virtualization, home-lab setup, basic pentesting workflows, threat analysis, SIEM familiarity, incident response basics.

Reverse Engineering & System Internals: Binary analysis, file structure inspection, Windows & Linux reversing fundamentals, automation tooling, software behavior analysis.

Programming & Scripting: C, Python, Go, Rust, Bash, Lua, JavaScript.

Operating Systems & Infrastructure: Arch Linux, Hyprland, systemd, containers, cloud computing basics, virtualization (VirtualBox, KVM).

Tools & Technologies: Wireshark, Nmap, Git, GitHub Actions, FFmpeg, tmux, Neovim, Docker, automation scripting.

PROJECTS & RESEARCH

Custom High-Performance Arch Linux Distribution
Designed and engineered a developer-optimized Linux environment with kernel tuning, script-based automation, fast navigation workflows, and tailored window management for high-efficiency cybersecurity and programming tasks.

Dental X-Ray Cavity Detection System
Built a machine-learning based system to classify & detect dental caries from X-ray images—demonstrating applied research, data processing, and practical healthcare analytics.

Secure Distributed Communication Architecture for AWS (Research — In Progress)
Developing a security-focused architecture for encrypted remote access and data transfer across distributed cloud environments.

Nuclear Power Plant Time-Derivative Simulation (Research)
Converted nuclear physics equations into dynamic computational models for large-scale plant simulation, focusing on safety, reliability, and control processes.

Reverse Engineering & Game Automation Tools
Analyzed proprietary formats, built extraction scripts, automated workflows, studied asset pipelines, and performed system-level debugging on Windows and Linux.

EXPERIENCE

Freelance Software & Systems Developer — Self-Employed *(2017–Present)*

- Built automation tools, navigation utilities, and workflow optimizers for Linux-based environments.
- Developed web applications, scripting solutions, and performance-focused software for students, developers, and small organizations.
- Assisted peers in cybersecurity learning, Linux setup, networking concepts, and application deployment.

INTERESTS

Reverse engineering, system security research, exploit development fundamentals, Linux performance tuning, distributed computing, OS customization, compiler theory, automation tooling, mathematical modeling, independent research.