Trevor Gray srdusr

Software Developer + Security Researcher

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"You can't know everything, but you should convince yourself that you can know anything." - John Carmack

PROFESSIONAL SUMMARY

Self-taught Software Developer and Security Researcher specializing in secure application development, penetration testing, and vulnerability research. Expert in systems programming with C/C++/Rust, linux administration, reverse engineering and hardware security analysis. Strong background in full-stack development with focus on building scalable, security-first applications and enterprise infrastructure management.

EXPERIENCE

Stevedore, Trainee Crane Operator | Port Stevedoring 2022 – 2024 Durban, South Africa
- **Attention to Detail:** Maintained perfect safety record and strictly adhering to operational protocols.
- **Problem-Solving:** Developed systematic approaches to troubleshoot and resolve complex mechanical challenges under pressure.
- **Team Player:** Collaborated with a diverse team to optimize cargo operations, improving overall efficiency by 15%.

Sales Associate | Rip Curl Ushaka 2020 – 2022 Durban, South Africa
- **Achievement-Driven:** Exceeded monthly sales targets by an average of 35% for 12 consecutive months.
- **Customer Service Excellence:** Maintained a 95% customer satisfaction score by delivering exceptional service and resolving issues promptly.
- **Sales Growth:** Contributed to store revenue through upselling and cross-selling strategies.

Sales Associate | Quicksilver Gateway 2018 – 2019 Umhlanga, South Africa
- **Social Engineering:** Developed strong interpersonal skills and ability to quickly build rapport.
- **Customer Retention:** Built strong customer relationships leading to repeat business and referrals.
- **Organizational Skills:** Conducted weekly stock audits, maintaining a 99% inventory accuracy rate.

EDUCATION

Fire Fighting | Rural Metro International Training Academy 2018 Grey Town, South Africa
- Developed skills in crisis management, risk assessment, and emergency response procedures.
- Certifications: Firefighting Level 1 & 2, Hazmat Awareness, Hazmat Operations, First Aid Level 3.

High School Diploma | George Campbell School of Technology 2017 Durban, South Africa
- Subjects: Mathematics, Physical Science, Mechanical Technology, Engineering Graphics and Design.

CERTIFICATIONS

- **CCNA** — Cisco Certified Network Associate: Networking fundamentals, IP connectivity, routing, and switching (In Progress)
- **RHCSA** — Red Hat Certified System Administrator: Linux system administration, user and group management, services, and security (In Progress)
- **OSCP** — Offensive Security Certified Professional: Penetration testing, exploit development, and hands-on ethical hacking (In Progress)
- **CPTS** — Certified Penetration Testing Specialist: Advanced penetration testing methodologies, vulnerability analysis, and reporting (In Progress)
- **Harvard CS50** — Introduction to Computer Science: Algorithms, data structures, software engineering, and problem-solving (In Progress)
- **CompTIA Security+** — Foundational knowledge in defensive security, risk management, and threat mitigation (In Progress)
- **Microsoft SC-200** — Microsoft Security Operations Analyst: Threat protection, SIEM, and Microsoft 365 security tools (In Progress)

PROJECTS

Cerberus | Password Manager github.com/srdusr/cerberus
- C-based secure password manager with a modern TUI, GUI, and browser extensions.
- Features zero-knowledge encryption and cross-platform support (Linux, Chrome/Firefox extensions).
- Provides CLI and browser integration for seamless credential management.

SRDWM | Window Manager github.com/srdusr/srdwm
- Modern, cross-platform window manager for Linux (X11/Wayland), Windows, and macOS.
- Supports tiling and floating layouts with smart window placement.
- Designed to enhance productivity and streamline window management.

Typerpunk | Typing Game typerpunk.com github.com/srdusr/typerpunk
- Typing test application available in both terminal (TUI) and web versions.
- Monorepo with TUI ('crates/tui') and Web ('web/') versions sharing the same dataset.
- Supports offline packs for custom typing challenges and real-time performance tracking.

TECHNICAL EXPERTISE

Security Focus:
- **Offensive Security:** Penetration Testing, Vulnerability Assessment, Exploit Development, Red Teaming, Web Application Security
- **Defensive Security:** SIEM, IDS/IPS, Endpoint Detection & Response (EDR), Threat Hunting, Incident Response
- **Network Security:** Firewall Configuration, Network Segmentation, Traffic Analysis, VPNs, Wireless Security
- **Web Security:** OWASP Top 10, Web Application Testing, API Security, Secure Code Review, SQL Injection, XSS

Development:
- **Systems Programming:** C/C++, Rust, x86/ARM Assembly, Low-level Development, Performance Optimization
- **Scripting:** Python, Bash, PowerShell, Perl,
- **Web Development:** JavaScript, TypeScript, Nextjs, Node.js, HTML5, CSS3, RESTful APIs, WASM
- **Secure Coding:** Memory Safety, Cryptography Implementation, Input Validation

Infrastructure:
- **Operating Systems:** Linux (Debian/RHEL/Arch/Gentoo Hardened), Windows Server
- **Administration:** Active Directory, SELinux, Apparmor, LVM, RAID, LUKS
- **Virtualization:** QEMU/KVM, VMware vSphere, Hyper-V, Proxmox VE, VirtualBox
- **Networking:** Nmap, pfSense, Cisco IOS, WireGuard
- **Containers:** Docker, Kubernetes, LXC
- **Automation:** Ansible, Terraform, Puppet, CI/CD Pipelines
- **Monitoring:** Prometheus, Grafana, Log Analysis

Tools & Frameworks:
- **Testing:** Burp Suite, Metasploit Framework, Nmap
- **Reverse Engineering:** Ghidra, IDA Pro, Frida
- **Forensics:** Autopsy, Wireshark, tcpdump
- **Hardware:** Logic Analyzers, Oscilloscope, JTAG Debuggers, UART/SPI/I2C Interfaces
- **Miscellaneous:** Git, Tmux, SSH, Nginx, Vim

ACHIEVEMENTS

- **Enterprise Homelab:** Built and operate enterprise server infrastructure with automated monitoring, SIEM, IDS/IPS, and network segmentation
- **CTF Participant:** Regular HackTheBox participant, strengthening offensive security and digital forensics skills
- **Open Source:** Active contributor to security and privacy-focused projects

INTERESTS

Open Source, Computers, Electronics, Reading, Modern Fencing

BOOKS

TCP & IP Illustrated, The C Programming Book, Grokking Algorithms

REFERENCES

Available upon request.