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> Systems Engineer | C & Kernel Developer Specializing in Low-Level Systems

ABOUT

Methodical Systems Engineer with a 19-year foundation in the Linux/Unix ecosystem and over 6 years of focused professional software development in C. I prioritize code correctness and architectural integrity over development speed, specializing in stable, low-level systems programming. Experienced in POSIX APIs, Linux Kernel development, network stack internals, device driver development, firmware, and hardware-software integration. A passionate open-source advocate bringing a systemic approach to development and debugging, with a commitment to building robust, reliable, maintainable, and production-ready software at the OS level.

EDUCATION

2019-2022 | Master of Linguistics Studies, Federal University of Fronteira Sul
2011-2018 | Bachelor of Business Administration, Federal University of Fronteira Sul
2007-2009 | Bachelor of Information Systems, UNOESC

RELEVANT EXPERIENCE

Infrastructure and Security Analyst | Chapeco-BR
sisHABI | Oct 2024 - Dec 2025

- Linux servers - OS/containers development, setup and maintenance
- Nginx, php-fpm, postgresql and other services
- Penetration testing and vulnerability analysis

Linux Kernel Driver Developer | Berkeley-US (remote)
Intensivate | Oct 2022 - Jun 2023

- Networking driver development for a protocol-capable switch
- Custom RISC-V Linux kernel for specific processors
- FPGA environment with chipyard-based toolchain
- C language with GNU toolchain, Kbuild and Linux Kernel APIs
- Refactoring of a non-NAPI network device driver into modern APIs
- Bandwidth-oriented driver improvement
- Qemu: cocotb integration and virtual device development

Full Stack C++ Developer | Dois Vizinhos-BR (remote)
CISS S.A. | Jan 2022 - Oct 2022

- Embedded point-of-sale and automation solution in C++ for ARM device
- Device drivers for automation displays, fiscal printers and related devices
- Localization module using POSIX i18n, Qt Locale and other tools
- Qt framework and QML interfaces

Freelancer Software Developer | Remote
Self-Employed | Dec 2020 - Nov 2024

- Contract software development projects for companies, research groups, startups and individual researchers
- Multiple software development projects for Linux and Unix environments
- POSIX APIs, Unix and Linux libraries, device drivers and firmware
- Embedded devices, networking, sockets and protocols

C & C++ Developer / Founder / CEO | Chapeco-BR
BeanWeb Solucoes | Sep 2008 - Apr 2015

- Development of a firewall and proxy in C and C++ using libnetfilter
- Development of a large API in C and C++ supporting CGI, Web, HTML composition, sockets, dynamic library loading and low-level utilities
- Company founder and CEO
- Wrote the company's business plan and secured 170,000 BRL in public innovation grants
- Managed sales, finance and administrative operations

Networking & Infrastructure Contractor | Chapeco-BR (part-time)
sisHABI | Dec 2008 - Feb 2010

- Responsible for company Linux servers
- Hosted accounting and management systems serving more than 500k users
- Linux servers, shell scripting, data migration and administration

C/C++ Developer | Chapeco-BR
SGI Sistemas | Aug 2007 - Sep 2008

- Development of Fiscal Printer (ECF) drivers
- Development of a printing network service
- Development of an embedded Linux system for printing services
- Working with Linux systems and libraries, sockets, kernel, firmware development and device drivers

Linux Instructor | Chapeco-BR (part-time)
Canal Livre Informatica | Aug 2007 - Sep 2008

- Curriculum formulation and teaching of Linux System Administration courses
- Bash shell, user management, filesystem management, text processing, text editing (vim), task scheduling, process management, networking and log management

Servers Technician (Linux) | Chapeco-BR
Inova Informatica | Jan 2007 - Aug 2007

- Administered diverse Linux server environments, configuring and optimizing high-performance services (HTTP/S, SMTP/POP3/IMAP) and kernel-level networking via iptables/netfilter firewalls and VPNs to solve complex client infrastructure requirements

Computer Technician | Chapeco-BR
Compucenter Informatica | Mar 2004 - Dec 2006

- Provided full-spectrum hardware and network support for Linux/Windows environments, expanding the role to include data recovery and the development of custom C-based plugins for the Squid web proxy

TECHNICAL SKILLS

Programming Languages	- C, C++, Shell [bash/POSIX], Python, x86 Assembly;
Operating Systems	- Linux, NetBSD, FreeBSD, Unix, POSIX [standards[;
Systems Programming	- Linux Kernel, POSIX APIs, Device Drivers, Firmware, Networking Stack Internals, Hardware-Software Integration;
Networking	- TCP/IP, Sockets, Application Layer Protocols, TLS, Netfilter;
Development Tools	- GNU Toolchain, GCC, Binutils, Autotools, Make, Git, GDB, Vim;
Linux Technologies	- Namespaces, Containers, cgroups, Socket API;
Other Tools	- Qemu, Docker, git-am, diff, patch;
Collaboration	- Mailing Lists, Patch Submission, Code Review, Leadership, Project Management, Agile[Scrum/Kanban];

LANGUAGES SPOKEN

English (fluent), Portuguese (native)