Christian Rafael de Souza Silva



Software Engineer — ML Systems, AI Infrastructure & Systems Software

Birigui, São Paulo, Brazil · me.christiansoftware.org · crafael2030@gmail.com · github.com/christianrss · LinkedIn

Software development since 2012, with professional experience in enterprise systems, retail and fiscal applications, APIs and desktop software. Independent projects focus on ML infrastructure and systems programming.

EXPERIENCE

Nov 2023 — Present

Information Systems Programmer — ITB Equipamentos Elétricos

Birigui, SP, Brazil

- Internal management system covering finance, accounting, production planning and engineering.
- C++, MySQL and Delphi; Horse APIs and Swagger documentation.
- .NET Core, EF Core, C#, JavaScript, React and PostgreSQL.
- DDD, CQRS, layered architecture and automated testing.
- Maintenance and extension of production systems, application APIs and automated testing.

Feb 2016 — Nov 2023

Full Stack Developer — Gigatron Franchising / Dotbank

Birigui, SP, Brazil

- PHP, Laravel, Angular, Vue and PostgreSQL; Android apps in Java/Kotlin and hybrid React/Ionic apps.
- APIs and products for ZIP code lookup, SMS, food delivery, retail automation, fiscal documents and ticketing.
- Linux/Windows Server administration; DigitalOcean, AWS and Cloudflare.
- Delphi application for production sheet stacking and printing.

Jul 2014 — Feb 2016

Full Stack Developer — Netstart Informática

Birigui, SP, Brazil

- Retail automation with Delphi/PostgreSQL and SAT fiscal queue processing with Redis.
- Desktop updater; PHP/CodeIgniter API and panel with jQuery and PostgreSQL.
- Internal tools, Bash scripts and cloud storage/querying of fiscal documents.

Jan 2014 — Jul 2014

Full Stack Developer — Gigatron Franchising

Birigui, SP, Brazil

- PHP/MySQL applications, server administration and SMS service using Python with a modem.

Aug 2012 — Jun 2013

Programmer Apprentice — Assessor Público (MV & P Tecnologia)

Araçatuba, SP, Brazil

- GeneXus applications, R&D, AWS server administration and OpenVPN.

Jan 2012 — Jul 2012

Programmer Apprentice — Gigatron Tecnologia

Birigui, SP, Brazil

- Internal applications in Delphi.

SELECTED PROJECTS

2025 —

ChrisOS

Experimental operating system and low-level playground for kernels, compilers, toolchains, virtual machines, emulators, drivers and graphics subsystems. GitHub · Documentation

2026

Chris-GPT-2

124M-parameter GPT-2 trained from scratch on ~10B FineWeb-Edu tokens using 4× A100 GPUs, with SafeTensors/GGUF exports. GitHub · Hugging Face

2026 —

Chris-Llama

Experimental LLM inference runtime in C covering GGUF, tokenization, attention, KV cache, quantization and CPU/GPU execution. GitHub

2026 —

Chris-Torch

Deep learning framework built from scratch with tensors, autograd, neural-network components, optimizers and accelerated backends. GitHub

2026 —

Velis

Collaborative workspace with device-local changes and multi-device synchronization. Product

2026 —

Chris Cleaner

C#/.NET desktop application for disk analysis, background file cataloging and user-controlled cleanup. Product

2026 —

Engineering Manual

Open, bilingual computer science and software engineering reference with full-text search, structured study tracks, editorial checks and automated static publishing. Website · GitHub

2026 —

Domine a Guitarra

Free interactive guitar-learning platform built with Astro and TypeScript, featuring chord diagrams, tablature playback, ear training and Web Audio synthesis. Website

2026 —

SharpEx

Market and portfolio-intelligence workspace with multiple portfolios, risk/return metrics, crypto, market data and structural research integration.

2026 —

Marginal Thinking

Independent macroeconomics, markets and geopolitics research platform with recurring reports, structural datasets and primary-source analysis. marginalthinking.org

EDUCATION

- **Postgraduate Degree in Electronic Engineering & Robotics** — UNINTER, 2026
- **Associate Degree in Data Science** — UNINTER, 2023 — 2025
- **Bachelor's Degree in Electrical Engineering** — UNINTER, 2025 — 2030, in progress
- **Technical Degree in Mechatronics** — Colégio Salesiano Dom Lasagna, 2012 — 2014

TECHNICAL PROFILE

Languages: C, C++, Python, Rust, C#, Java, Kotlin, JavaScript/TypeScript, PHP, Delphi.

ML & systems: LLM training/inference, PyTorch, CUDA, distributed training, GGUF, quantization, Linux, operating systems, compilers, virtual machines and emulators.

Applications & infrastructure: .NET, React, Laravel, REST APIs, PostgreSQL, MySQL, Redis, DDD, CQRS, GitHub Actions, Cloudflare, AWS and DigitalOcean.