



Christophe De Troyer

PhD Computer Science
Vrije Universiteit Brussel

+32 489 97 94 28
christophe@call-cc.be
GitHub | GitLab | LinkedIn

SUMMARY

Software engineer with 10+ years of Elixir and hands-on Rust experience in a research and industry context. I get energy from mentoring and complex challenges, have very broad interests and am eager to learn new things.

In 2022 I obtained my Ph.D., which trained me in programming language design and during which I did research in metaprogramming for stream-based domain-specific languages.

EDUCATION

Degree	Institute	Year
PhD Computer Science - Programming Language Design	VUB, Brussels	2015-2022
Postgraduate Entrepreneurship	HoGent, Odisee	2022-2023
Master of Science: Computer Science	VUB, Brussels	2012 - 2015
Bachelor of Science Applied Informatics	HoGent, Aalst	2008 - 2012

EXPERIENCE

- Heliax** *Technical Lead* Switzerland/Remote - September 2024 - Present
 - Tech lead on the AnomaPay project. I managed a team of 5 engineers, building a privacy-preserving payment application based on zero-knowledge transactions on the Ethereum EVM in Rust and Elixir.
 - Served as primary technical authority, owning architectural direction and guiding engineering decisions across the project.
 - Mentoring junior engineers in software engineering fundamentals, production-readiness of applications, and code reviews.
- Justified** *Software Engineer* Ghent/Remote - April 2023 - September 2024
 - As an Elixir developer, I was responsible for helping to build the collection platform that processes thousands of cases per day.
 - The Elixir application had to be highly-available, and in the scale-up phase of the company it was important to identify bottlenecks in the platform and increase scalability where possible using an async job system, periodic tasks, and database optimizations.
 - Real-time analytics were a core feature of the platform. I was responsible for optimizing Ecto queries and ensuring near-consistent user-facing metrics.
- Loomy** *Founder* Erembodegem - September 2022 - Present
 - Solely designed and built the full tech stack: a Golang/Elixir microservices back-end, Flutter mobile app, and Webflow website — achieving less than 15 minutes of downtime in the past year across 1,000+ users.
 - Integrated third-party services including Auth0, PostgreSQL, and Smallstep (x509 CA), and programmed smart devices using the Espressif IoT framework (C).
 - Owned all non-technical functions end-to-end: supply chain setup, 3D product modelling, and financial management.
- weave.ly** *Software Engineer* Brussels - August 2022 - November 2022
 - As one of the first engineer I was responsible for a wide array of tasks. I integrated Stripe payments into the Node.js back-end, set up a CI/CD pipeline by containerizing all the microservices in Docker, set up the initial IaC using Ansible, and configured system monitoring and observability using Grafana, Prometheus, and Loki.
- Vrije Universiteit Brussel** *PhD Student, Teaching Assistant* Brussels - August 2015 - August 2022
 - During my research I designed a stream-based programming language in Elixir, a dialect of Erlang. Doing this I gained a lot of expertise and in-depth knowledge of the language.
 - As a PhD student I was responsible for teaching multiple courses: “Structuur 1”, an introductory course to programming, “Multicore Programming”, a masters course in concurrent programming in Java, Clojure, Erlang, and C, and “Programming Project”, a year-long programming project in Scheme.

TECHNICAL SKILLS

- **Programming Languages (Professional Experience):** Elixir, Rust, C (FreeRTOS)
- **Additional Programming Languages:** Go, Haskell, Clojure
- **Front-end:** Flutter, HTML/CSS, Elixir Phoenix
- **Scripting Languages:** Bash, Python
- **System Administration:**
 - Operating systems: Unix systems (debian-based), Proxmox
 - Infrastructure as Code: Ansible and Terraform
 - Cloud providers: Amazon AWS, Google Cloud
 - Monitoring: Grafana, Loki, Prometheus, Alloy

OTHER COURSES & TRAINING

- **Voka Bryo Standup** 2022
- **Voka Bryo Startup** 2022
- **Udacity Nanodegree: Data engineer** 2022

LANGUAGES

- Dutch: Native
- English: Excellent
- French: Basic (Duolingo Addict)