

Victor Castelain

Software Engineer · Applied AI
Brussels, Belgium · Open to relocation

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SKILLS

AI & Data: Agentic coding tools (Claude Code, Codex); learning Python, machine learning, data science and MLOps
Languages: Rust, Java, C#, TypeScript, JavaScript, PHP, Dart, SQL
Frameworks: Tokio, ASP.NET Core, Entity Framework Core, Angular, React, Flutter, Riverpod, JavaFX
Tools & DevOps: Git, Docker, GitHub Actions, Playwright, PostgreSQL, Redis, PostgREST, WebSockets, Unity
Architecture: RESTful APIs (Swagger/OpenAPI), MVC, MVVM, server-authoritative real-time systems
Project management: GitHub, Bitbucket, Jira, Trello, ClickUp, Agile
Spoken languages: French (C2), English (B2), Dutch (A2)

PROFESSIONAL EXPERIENCE

Full-Stack Developer Intern — JAK Solutions

Brussels, Belgium

Playwright, GitHub Actions, React, .NET, Redis, Tolgee | Cobria (internal SaaS)

Feb 2026 – May 2026

- Built a **65+ test Playwright E2E pipeline** integrated into GitHub Actions CI, covering Cobria's critical user flows and strengthening regression coverage before each release.
- Developed an **analytics dashboard with 8 business KPIs**, custom date-range filtering, country-based user segmentation and Excel export.
- **Initiated the Tolgee integration** across the company's applications to enable i18n and centralized translation management.
- Delivered in **two-week Agile sprints** with daily standups, code reviews and technical discussions with the development team.

EDUCATION

Erasmushogeschool Brussel

Brussels, Belgium

Postgraduate Certificate in Applied AI

Sep 2026 – Apr 2027

EPFC

Brussels, Belgium

Bachelor of Computer Science

Sep 2023 – Sep 2026

SELECTED PROJECTS

The Rulers — Co-op Colony Simulation (Final-year thesis, EPFC)

Rust, Tokio, Unity / C#, WebSockets, Behavior Trees, PostgreSQL

Feb 2026 – Oct 2026

- Designing and building a 2-player cooperative colony simulation around a **server-authoritative Rust backend** running a **real-time game loop at 20 ticks/s** with concurrent shared state (Arc/Mutex).
- Unity clients connect to the server over **WebSockets** and stay in sync in real time.
- Implementing **autonomous AI agents driven by behavior trees**, with PostgreSQL persistence for world state and player progression.

Full-Stack Web App — C# API & Angular Front End (EPFC)

C#, ASP.NET Core, Entity Framework Core, Angular, Docker

Sep 2025 – Jan 2026

- Designed a **RESTful API with DTOs, input validation and structured error handling**, consumed by an Angular front end through HTTP services.
- **Deployed with Docker** for a reproducible environment.

Shared Expense Management — Cross-Platform Mobile App (EPFC)

Flutter, Dart, Riverpod, PostgreSQL, PostgREST

Jan 2025 – Jun 2025

- Built a cross-platform mobile app with **reactive state management via Riverpod**, backed by a PostgreSQL database exposed through a **PostgREST API**.

Interactive Spreadsheet — Formula Engine (EPFC)

Java, JavaFX, MVVM

Nov 2024 – May 2025

- Built a **calculation engine** handling formulas, cell dependencies and error management following **MVVM**, with an interactive JavaFX UI.

Form Management Web App (EPFC)

PHP, JavaScript / jQuery, SQL, MVC

Sep 2024 – Jun 2025

- Developed a **PHP backend following MVC** with dynamic AJAX/JSON features on top of a relational SQL database.