

STEFAN FLORIN CIOABA

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EDUCATION

Politehnica University Timisoara

Bachelor of Engineering (B.E.) in Automation and Applied Informatics

Timisoara, Romania

Oct. 2024 – July 2028

PROJECTS

PartyPopped | *Spring Boot, Supabase, PostgreSQL, React*

partypopped.com

- Built a full-stack event-discovery and attendance platform (React 19/Vite frontend, Spring Boot REST API) with 7 controllers and 35+ endpoints, backed by Supabase/PostgreSQL and deployed via Vercel and Render.
- Designed a stateless JWT auth flow where Supabase issues tokens and a custom Spring Security filter chain validates them via shared HMAC secret, keeping identity logic in one place.
- Architected the backend with a consistent layered structure (controller, service, repository) across 8 domain modules, using JPA entity mapping and manual DTO mappers for clean separation.
- Built a social layer with follows, paginated feeds (posts, upcoming events, live events), bookmarking, and attendance tracking, proxying Supabase Storage uploads through a custom HTTP client.
- Set up monitoring and centralized logging for the backend using Grafana Cloud and Spring Actuator health checks.

HTTP Server in C++ | *C++, Sockets*

github.com/stefanncioaba/http-server-cpp

- Built a single-threaded, non-blocking HTTP/1.1 server from scratch in C++ to explore and solve the C10K problem.
- Benchmarked a naive thread-per-connection baseline with `wrk`, identifying a hard ceiling of 5,889 concurrent connections due to thread/stack overhead.
- Redesigning the server around a single-threaded epoll event loop with non-blocking sockets, tracking per-connection state (READING_HEADERS, READING_BODY, WRITING) to serve thousands of clients on one thread.
- Sustained 14k req/sec with zero socket errors from 100 up to 15,000 concurrent connections, way over the original C10K target, validated through systematic `wrk` load testing across increasing concurrency levels.

Unix-like Shell in Java | *Java, OOP, Process Management*

github.com/stefanncioaba/java-mini-shell

- Designed and implemented a Unix-like shell from scratch with a modular command architecture using interfaces for built-in and external commands.
- Implemented command parsing with support for quoting, escaping, and output redirection (`>` and `1>`).
- Built core shell functionality: `cd`, `pwd`, `echo`, `type`, `exit`, and a custom `cat` with file resolution and redirection.
- Executed external programs by resolving paths via `PATH` and managing processes using `ProcessBuilder`.
- Handled absolute and relative paths with normalization and directory state management.

LICENSES AND CERTIFICATIONS

CPA: Programming Essentials in C++

Issued July 2023

Cisco Networking Academy

- Covered C++ fundamentals: control flow, functions, arrays, pointers, basic OOP (classes/objects), and problem solving.
- Completed hands-on labs and mini-projects to practice debugging and writing maintainable code.

Networking Basics

Issued April 2026

Cisco Networking Academy

AI Fluency for Students

Anthropic

TECHNICAL SKILLS

Languages: Java, C/C++, JavaScript, Python, HTML, CSS, Bash

Frameworks: Spring Boot, React

Developer Tools: Git, GitHub, Docker

Spoken Languages: Romanian (Native), English (C1 – Advanced)