

Safet Imamović

Software Engineer

✉ University

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✉ Personal

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Zenica, Bosnia and Herzegovina

🔗

GitHub

🌐

https://enginecv.app

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LinkedIn

EXPERIENCE

09/09/2026 - Present

Zenica, Bosnia

Teaching Assistant
University of Zenica

Teaching assistant for Object Oriented Programming Languages, focusing on C#/.NET and object-oriented programming concepts and theory.

08/2024 - 09/2024

Sarajevo, Bosnia
(Remote)

Backend Developer Intern
Symphony SA

- Built a RESTful API for student management with FastAPI, using Pydantic for data validation and Alembic for database migrations.
- Wrote unit and integration tests with pytest and tested API workflows with Postman.
- Containerized the application with Docker to support repeatable deployment.

03/2022 - 05/2022

Zenica, Bosnia

Promoter
UniCredit Bank Bosna i Hercegovina

Distributed printed promotional material for the bank.

EDUCATION

Zenica, Bosnia

Master's (in progress), Software Engineering
University of Zenica, Polytechnic Faculty

10/2022 - 09/2025

Zenica, Bosnia

Bachelor's, Software Engineering
University of Zenica, Polytechnic Faculty

Bachelor's thesis in Computer Graphics: Web & Native 3D Render Engine using Rust & WebGPU.

CERTIFICATES

06/2024

JavaScript Algorithms and Data Structures (Beta)
freeCodeCamp

02/2024

Relational Database
freeCodeCamp

10/2025

ICSS World Cup 2025: Third Place
ISINEG

LANGUAGES

Mother tongue(s): Bosanski

LANGUAGE	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Self-assessed					

PROJECTS

Adjustability PUBLIC

 [GitHub SafetImamovic/Adjustability](#)

Minecraft mod (Fabric + NeoForge): keep conflicting enchantments like Fortune and Silk Touch on one item and switch which one is active.

ThrowableMobs PUBLIC

 [GitHub SafetImamovic/ThrowableMobs](#)

Minecraft mod (Fabric + NeoForge): pick up mobs, throw them with a trajectory preview, and catch them mid-air.

EngineCV

Creator & Developer – browser-based resume builder 

- Built and maintain a resume builder with structured content editing, live preview, templates, and layout customization.
- Implemented local browser storage, autosave, version history, and portable JSON imports and exports.
- Integrated a shared Typst rendering pipeline for document preview and PDF export, with GitHub and LinkedIn import workflows and support for five interface languages.
- Added unit, integration, and browser tests covering editing, persistence, and export workflows.

PostgreSQL / Valkey TPC-H Benchmark

Database performance research 

- Developed a reproducible benchmark harness comparing PostgreSQL indexing and Valkey result caching across four experimental configurations.
- Used Docker Compose to support repeatable experiments and committed an SF10 reference dataset with processed results and figures.
- Documented experimental methods and hardware/software manifests to make results reproducible.

ForgeAI

Text-to-MIDI web prototype 

- Developed a Django web prototype that turns natural-language music prompts into downloadable MIDI files using Google Gemini.
- Connected prompt submission to the model API and converted structured JSON responses into MIDI for use in digital audio workstations.

world-backup

Rust backup automation CLI 

- Built a standalone command-line tool for timestamped Minecraft server backups with staged snapshots and multiple archive formats.
- Added interval and cron scheduling, retention rules, and pre/post hooks for server workflows.
- Set up GitHub Actions packaging for Windows, Linux, and macOS.

Oxide Render Engine

Bachelor's thesis – native and browser 3D graphics 

 [Repository](#) [Browser demo](#)

- Built a Rust rendering engine using wgpu, with native windowing through winit and browser builds through WebAssembly.
- Implemented camera controls, transformations, render-pass management, and glTF model and texture loading.
- Published browser examples demonstrating the rendering pipeline.

GRIT – General Rust Interface Tool

Modular developer CLI 

- Built a modular Rust command-line utility with consistent, pipe-friendly working-directory output.
- Added custom commands loaded from TOML configuration and executed through the platform shell.

SupplyCascade

Team coursework – supply-chain failure simulation [↗](#)

- Co-developed a Python simulation framework for cascading failures in supply-chain networks.
- Modeled directed networks with NetworkX and discrete events with SimPy to compare centralized and decentralized topologies.
- Analyzed delivery delay, throughput, dropped packets, and network resilience under disruption.

Numerical Approximation & Interpolation

Interactive mathematics web application [↗](#)

[Repository](#) [Web application](#)

- Developed a Next.js application for fitting functions and exploring numerical methods with step-by-step calculations and interactive plots.
- Supported manual data entry, function expressions, and CSV/JSON uploads.
- Integrated MathLive and Plotly with Bosnian and English interface support.

Autonomous Driving Simulation

Coursework – reinforcement learning and behavioral cloning [↗](#)

Coursework exploring PPO reinforcement learning and PilotNet behavioral cloning in a Unity driving simulation. Includes reproducible track generation from seeds and comparisons with human driving data.

Multi-Agent Robot Simulation

Cooperative reinforcement-learning project [↗](#)

Python simulation of cooperative cleaning robots using PPO. Tracks room coverage and agent steps, with visualizations of policy behavior at different training checkpoints.

Terminal 3D Render Engine

3D graphics in C [↗](#)

Built a lightweight terminal renderer in C with animated 3D examples and configurable display dimensions. Used CMake to support Windows and Linux builds.

Music Streaming Service

Web application [↗](#)

- Built a TypeScript music-streaming application using Supabase for backend services.
- Implemented account registration and login, music search, administrator uploads, and liked tracks.

Audio System

Team coursework – object-oriented C++ [↗](#)

Co-developed an audio application with two other developers, applying object-oriented C++ to file navigation, playback, volume control, and track skipping.

☆ SKILLS

Programming: [Python](#) [TypeScript](#) [JavaScript](#) [Rust](#) [C](#) [C++](#) [C#](#) [SQL](#)

Frameworks & Web: [React](#) [Next.js](#) [FastAPI](#) [Pydantic](#) [Django](#) [.NET](#) [HTML / CSS](#)

[Tailwind CSS](#) [API integration](#)

Databases & Storage: [PostgreSQL](#) [Alembic](#) [Supabase](#) [Valkey](#) [IndexedDB](#)

Tools & Testing: [Git](#) [Docker / Docker Compose](#) [Bash](#) [CMake](#) [GitHub Actions](#) [Vitest](#)

[Playwright](#) [Postman](#) [pytest](#)

Graphics & Simulation: [wgpu / WebGPU](#) [WebAssembly](#) [SimPy](#) [NetworkX](#) [Linear algebra](#)