Tassio Steinmann

Software Engineer & Game Developer

Switzerland / Spain (remote-friendly) · linkedin.com/in/tassios/ · github.com/tassiost · steinmann.streamlit.app (portfolio)

SUMMARY

Software engineer who builds hard things end-to-end: an on-device AI inference platform in Rust/WASM/WebGPU, a WebGPU runtime for 1-bit LLMs, browser games, and data-visualization work for a university hospital. Strong in TypeScript/React, Rust, and Python; comfortable owning systems from shader to shipped product.

SELECTED PROJECTS

forge — local-first AI platform (design & build)

Rust · wgpu/WGSL · WASM · TypeScript · React · Tauri

- Complete on-device AI layer for games and apps: 1-bit LLM inference compiled to WASM/WebGPU — offline-first, zero servers, zero API keys.
- Structured generation with validation, streaming, provenance, caching, RAG with real embeddings, tool calling, diffusion, and voice (STT/TTS/10s voice cloning).
- One Rust codebase → web, native, and mobile (Tauri). React SDK with hooks and drop-in components (useForgeChat, <ForgeChat>, model picker, download progress) — consuming apps never rebuild AI plumbing.
- Progressive-disclosure API, ~2000-test suite, WGSL compute shaders with streaming tensor uploads.

voxelforge — voxel game engine

Rust · Bevy · wgpu · WASM/WebGPU

- 26-crate workspace: chunked voxel simulation, greedy meshing, client/server netcode, tooling — desktop and browser targets.

Inselspital Bern — data visualization (university hospital)

R · D3.js

- Built data-visualization dashboards for hospital operations.

Web & games work

- Falling-sand engine — WebAssembly cellular-automata playground, live at tassio.onrender.com.
- PogoSwing-WebGL & EndlessMine-WebGL — games ported to WebGL (public repos).
- Client VR work: pre-flight training for Corendon Airlines; SnowLimits VR skiing simulation.

SKILLS

Languages: TypeScript, JavaScript, Rust, Python, C#, R

Frontend: React, HTML/CSS, D3.js, Vite

Systems/Graphics: WebGPU, WGSL, WASM, wgpu, Bevy

Platform: Tauri (desktop + mobile), Meteor

Tools: Git

EDUCATION

BSc Computer Science (4 semesters), University of Bern

BSc CMD — Game Design, Hanze University of Applied Sciences, Groningen

LANGUAGES

Swiss German (native), German, English, Spanish, Catalan, French