

Cody Bloemhard

SOFTWARE ENGINEER

Utrecht, The Netherlands

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Summary

I have worked on all kinds of software including parsers, open source libraries, command line applications, data processing tools, core OS interface components, rendering engines, GPGPU, game engines, 2D and 3D games, android apps, experimental prototypes, interactive electronic devices, AI's, procedural generated content and algorithmic art. I support the philosophy, use and development of free and open source software. My favourite programming language is Rust. I have been programming for 10+ years and can do so without LLMs.

Education

BSc in Computer Science

UTRECHT UNIVERSITY

Propedeuse Bachelor of Creative Media and Game Technologies, Game Development

HKU (UNIVERSITY OF THE ARTS Utrecht)

- During this time I learned to work with designers, artists, end users and other less technical people.

Experience

Software Engineer

UTRECHT COMPANION TO THE EARTH

- Utrecht Companion to the earth is an app that aids Geo-science students. Our client was the Geo-science department of Utrecht University. My responsibility was optimizing big data for mobile use and building an Android app. Technologies used by me were Rust and Kotlin with Android Studio. We used Agile methodologies and test automation with CI.

Exposure

Languages Rust, C#, Python, C/C++, Java, Kotlin, Haskell, GLSL, HTML/CSS, Typst, Latex

Frameworks/Libs Pest, OpenGL, OpenCL, Unity3D, Docker, Bevy, Monogame, Arduino

Miscellaneous Git, (neo)Vim, Agile, CI, Arch/Artix/Void Linux

Spoken Languages native: Nederlands, professional: English

Projects

ringwm

→ codybloemhard/ringwm

- [Rust] A bespoke window manager with a novel UX written in Rust with Penrose.

incodoc

→ codybloemhard/incodoc

- [Rust] A document format aiming for an improved reading experience more by doing less.

paclog

→ codybloemhard/paclog

- [Rust] A CLI log inspection tool to query the pacman log file.

stonks

→ codybloemhard/stonks

- [Rust] A CLI plain text accounting tool to track personal finance in a transactional database.

linux-rice

→ codybloemhard/linux-rice

- [Shell/C/Rust/...] Custom desktop environment by configuring and forking selected open source components.

termdaw

→ codybloemhard/termdaw

- [Rust] A CLI/TUI digital audio workstation (DAW) meant for algorithmic and AI music composition.

TheøryFrøg

<https://codyb.xyz/theory-frog.html>

- [Rust/WASM] static webapp to query music theory information.

music-theory

→ codybloemhard/music-theory

- [Rust] Library to process music theory objects and queries, with 100% test coverage.

GPGPU Pathtracer

→ codybloemhard/clrays

- [Rust/C#/OpenCL] GPU accelerated pathtracer with BVH and microfacets, algorithms implemented from academic papers.