# Cody Bloemhard

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github | in linkedin

### SUMMARY \_

I am a computer science student and former Art student. My focus is on software engineering/development. I have worked on all kinds of things including 2D and 3D games, game engines, rendering engines, GPGPU, command line applications, open source libraries, android apps, data processing tools, experimental prototypes, interactive electronic devices, AI's, procedural generated content and algorithmic art. I care about combining art and programming and I support the philosophy, use and development of free and open source software.

#### **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 worked with many Designers and Artists in contrast with University where there are only CS students, showing me a whole new world.

#### EXPERIENCE

#### **UTRECHT COMPANION TO THE EARTH**

SOFTWARE ENGINEER

• Utrecht Companion to the earth is an app that has the goal to aid Geo-science students. Our client for the project was the Geo-science department of Utrecht University. My responsibility was optimizing large amounts of data for mobile use and building the Android app. Technologies used by me were Rust and Kotlin with Android Studio. We used Agile methodologies and test automation with CI. I learned about building Android apps, Big Data, compression and the Geo-science field. src.

## SKILLS\_

## SOME OF MY PROJECTS \_

- Termdaw: A DAW in a terminal. Written in Rust. src
- TheøryFrøg: A Rust/WASM webapp to query music theory info. web src, lib src, web app
- Frag: library in Rust to render fragment shaders to screen or video. src
- GPGPU Raytracer in Rust, C# and OpenCl: src.
- CPU Raytracer in C# with models, stratisfied sampled area lights, textures, stochastic glossy reflections, refraction, HDR skyboxes, SSAA, FXAA, multithreading: src.
- Pacman clone... But in Haskell: src.
- Linux rice, custom desktop environment by configuring and forking many open source sub-components: src.
- Procedural terrain generation and hydraulic erosion: src.
- Term-basics-linux: A library for extra terminal IO on linux: src.
- MIDI Music Generator: src.
- HackerRank challenges (Problem Solving(Basic), C++(Basic) certified): link.
- Personal Planner: A TUI app to help plan your life: src.
- codyb.xyz: my personal website: src.
- Shapebar: a statusbar for x11. Forked from lemonboy's bar, merged and expanded to look slick while being minimal: src.