



David Huber, PhD

Senior Software Engineer

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Transitioning from a computational physicist to a software engineer, I've honed a unique blend of theoretical abilities and hands-on expertise. My academic journey culminated with a PhD in astroparticle physics, where I delved into relativistic fluid models tailored for high-performance computing. Professionally, I am now fully immersed in web3, developing custom smart-contract and backend solutions for a broad range of applications while maintaining a strong focus on security and maintainability and with a passion for complex problems and home espresso making.

Skills

I already know

Solidity 5/5 Golang 3/5 Mathematica 4/5 C++ 3/5 Python 3/5 Espresso 5/5

I want to learn

Rust Noir Circom

I speak

German Native English Full professional proficiency Italian Limited professional proficiency

Work experience

Lead Blockchain Engineer

August 2022 - October 2023

PROOF

- Consulted internally on blockchain related decisions for 15+ projects ensuring their smooth execution
- Developed a modular smart-contract infrastructure with >25k lines of Solidity, handling >2.5k ETH (>\$4M) in primary transaction value and generating >13k ETH (>\$20M) in secondary revenue
- Implemented [Moonbirds in-chain](#); A low-level optimized, on-chain rendering suite for Moonbirds using compressed image layers deployed with [Solidify](#); achieving <0.5 ETH in deployment costs
- Released [Solidify](#); A goolang + solidity library for efficient data storage on EVM blockchains
- Contributed to the broader Ethereum ecosystem by co-authoring [EIP-6464](#) and [EIP-7526](#)

Technologies: Ethereum, Solidity, Golang, Python, Docker, PostgreSQL

Blockchain and Research Engineer

January 2022 - now

Freelance

- Collaborated with 6+ clients and their teams to define project requirements ensuring a smooth execution
- Delivered custom smart-contract solutions and related backends
- Collaborated with 2+ security auditing firms to identify and rectify vulnerabilities
- Contributed over 8.5k lines of code (~30%) to the open-source library [Ethier](#)

Technologies: Ethereum, Solidity, Golang, Mathematica, Python, Docker

University Assistant

September 2017 - December 2021

University of Innsbruck

- Contributed to 30+ research items including 3 articles as first author, published in high-impact journals
- Developed numerical methods for HPC infrastructure with parallel execution on >12k cores
- Received a PRACE project grant for >27M CPUh on the Joliot Curie Rome infrastructure

Technologies: C++, C, Python, Mathematica, OpenMPI, Golang

Projects

Mantle DAO - Liquid Staking Protocol

May 2023 - October 2023

Upcoming Ethereum liquid staking protocol operated by Mantle DAO aimed to handle >\$1B in assets.

- Co-designed the high-level smart-contract and off-chain service architecture underpinning the protocol
- Implemented various parts (~40%) of the smart-contract infrastructure
- Collaborated with auditors to identify and rectify vulnerabilities

Company: TwoFiftySix Labs Team size: 5 person My role: Architect, Smart-Contract Engineer

Technologies: Solidity, Golang, Docker, Prometheus

gm.studio

December 2021 - now

The on-chain generative art platform by artists, for artists.

- Developed the smart-contract infrastructure with 11+ collections launched and >\$2M generated in revenue
- Contributed to the backend services handling the dynamic rendering of generative artworks

Company: gm DAO Team size: 4 person My role: Architect, Smart-contract/Backend Engineer

Technologies: Solidity, Golang, PostgreSQL, Docker, React.js, Tailwind CSS

Strange Attractors

August 2021 - October 2021

A generative art project featuring on-chain numerical solution of multi-dimensional differential equations, dynamic image generation and holder participation without any off-chain dependencies.

- Conceptualized and implemented the project independently, generating 160 ETH in revenue

Company: None My role: Full-stack Engineer, Manager

Technologies: Solidity, Next.js, TypeScript, SASS

Education

PhD in Computational High-Energy Astroparticle Physics

October 2017 - January 2022

Leopold-Franzens-Universität Innsbruck, Austria

MSc in Computational Physics

October 2015 - October 2017

Leopold-Franzens-Universität Innsbruck, Austria

BSc in Physics

October 2012 - August 2015

Leopold-Franzens-Universität Innsbruck, Austria