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												
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already know												
Solidity	5/5	Golar	ig 3/	5 Mathematica	a 4/5	C++	3/5	Python	3/5	Espresso	5/5	
l want to	want to learn											
Rust	Noir	Circo	n									
l speak	speak											
German	erman Native		nglish	Full professional proficiency		ncy	Italian	Limited professional proficiency			псу	

Work experience

Founding Engineer

Echo

- Helped build echo.xyz from the ground up from early prototypes to production
- Shipped core features across the full stack, from smart contracts and backend infra to polished UIs

Technologies: Golang, TypeScript, Solidity, Next.js, Tailwind CSS, PostgreSQL

Blockchain and Research Engineer

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

Lead Blockchain Engineer

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

August 2022 - October 2023

January 2022 - now

January 2024 - now

- Implemented <u>Moonbirds in-chain</u>; A low-level optimized, on-chain rendering suite for Moonbirds using compressed image layers deployed with <u>Solidify</u>; achieving <0.5 ETH in deployment costs
- Released <u>Solidify;</u> A golang + solidity library for efficient data storage on EVM blockchains
- Contributed to the broader Ethereum ecosystem by co-authoring $\underline{\text{EIP-6464}}$ and $\underline{\text{EIP-7526}}$

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

University Assistant

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 <u>PRACE</u> project grant for >27M CPUh on the <u>Joliot Curie</u> Rome infrastructure

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

Projects

Mantle DAO - Liquid Staking Protocol

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

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

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

Leopold-Franzens-Universität Innsbruck, Austria

October 2017 - January 2022

December 2021 - now

September 2017 - December 2021

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May 2023 - October 2023

August 2021 - October 2021

MSc in Computational Physics

Leopold-Franzens-Universität Innsbruck, Austria

BSc in Physics

Leopold-Franzens-Universität Innsbruck, Austria

October 2012 - August 2015