

Waylon Jepsen

RUST SYSTEMS ENGINEER

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Experience

Staff Applied Cryptography Rust Engineer, Pluto Labs Inc.

May 2024 - May 2025

- Proving TLS sessions with zero-knowledge cryptography.
- Built the fastest client side proving backend.
- Addressed performance needs by discovering circuit constraint optimizations in NIST cryptographic TLS candidates resulting in a 5x performance increase.
- Built reverse proxy networking infrastructure.
- Optimized compile pipelines across WASM, Circom, and Rust, resulting in a 5x performance increase.

Principal Research Engineer (Rust), Primitive Bits

April 2022 - May 2024

- Built agent-based simulation modeling tools in Rust.
- Contributed to the core Rust Ethereum core infrastructure (reth, revm, and ethers-rs).
- Developed and maintained security and analysis tools for the EVM in Rust used by the larger community.

Researcher, Network Engineering, Colorado State University

May 2021 - May 2022

- Built discrete event simulators to validate the model .
- Investigated the tropical algebraic semi-rings.
- Modeled TCP Congestion with Tropical Algebra.

Developer Relations, Hedera Hashgraph

July 2021 - April 2022

- Produced written and recorded content to educate software engineers on how to use our software development kits.
- Led workshops to teach software engineers how to write and deploy their smart contracts to the Hedera network (Besu EVM).
- Worked on open cryptography problems concerning threshold cryptography and Shamir's Secret Sharing.

Education

Master of Science, Computer Science

Colorado State University, January 2020 - May 2022

Tropical Algebraic Modeling of TCP Congestion

Bachelor of Science, Mathematics & Philosophy

Colorado State University, August 2012 - May 2017

Elliptic Curve Cryptography

Industry Involvement

Crypto Economics Security Conference (CESC'22)

Zero-Knowledge Proof Workshop (affiliated with CESC22)

ACM Conference on Economics and Computation (EC'22) *Optimism, Developer*

Advisory Board, Part time, November 2023

- Served on a technical board of advisors for optimism governance to ensure the technical quality of projects receiving funding from the optimism foundation.

Hacker Houses, Part time, September 2022 - 2024

- Raised over \$250k in grants from Venture Capitalist
- Organized 6 hacker house series with over 2800 visitors in 3 continents
- Hosted 200 residential hackers who hacked 90 projects and raised more than \$30M for their projects