

John Whitton

Principal Software Engineer | Protocol Engineering | Solidity | Rust

Smart Contracts | Intents | Settlement | Distributed Systems

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Profile

Principal software engineer specializing in protocol engineering, Solidity and Rust systems, smart contracts, intents, settlement, and DeFi infrastructure.

Over the past eighteen months I deliberately invested in mastering modern protocol engineering, building Solidity smart contracts, execution systems, and Rust infrastructure that complement more than two decades of experience delivering enterprise software, blockchain infrastructure, payment systems, and engineering leadership.

Alongside this work, I developed AI-native software engineering practices by creating reusable engineering workflows, architecture automation, documentation synchronization, and AI-assisted engineering processes that accelerated implementation while maintaining high standards for correctness, protocol safety, performance, and software quality.

I build these systems directly, across Solidity protocol implementation and Rust execution infrastructure, where correctness, execution boundaries, settlement guarantees, and protocol invariants matter.

Engineering Highlights

- Consulted on DeFi leverage-token infrastructure, auction-based rebalancing, lending integrations, and protocol execution workflows.
- Designed intent-solving workflows across The Compact, 1inch, CoW Protocol, Uniswap, UniswapX, and Uniswap v4 hooks.
- Built Solidity protocol systems including smart contract wallets, decentralized naming, AMM incentives, staking, and fee conversion.
- Built Rust trading infrastructure supporting market data ingestion, graph construction, simulation, execution, replay, route evaluation, and strategy analysis.
- Applied AI-native software engineering practices across a ~99K-line Rust codebase comprising 13 crates, 16 top-level architecture and process documents, and 3 reusable engineering workflows, accelerating implementation, documentation, and code review.
- Built stablecoin payment infrastructure, cross-chain settlement, programmable money systems, and wallet/routing/proving services.
- Built and documented production-quality systems through architecture case studies, implementation walkthroughs, and technical portfolio.
- Built and operated distributed blockchain infrastructure, validator networks, SDKs, APIs, and production upgrade processes.

Representative Engineering Work

Salus (Rust)	Modular Rust trading platform supporting market data ingestion, graph construction, simulation, execution, replay, strategy evaluation, and multi-chain execution with deterministic runtime boundaries and queue-driven scheduling. Built with a strong emphasis on deterministic execution, maintainability, engineering quality, and long-term evolution.	2025–Present
Seamless (Solidity/Rust)	Solidity and Rust components for leverage tokens, auction-based rebalancing, Morpho lending integrations, CoW Protocol requests, ERC-6909 accounting, and protocol invariant analysis.	2025
Eco	Stablecoin payment infrastructure, programmable money, cross-chain settlement, routing, proving, wallet services, and Layer-2 transaction execution.	2023–2025
1wallet (Solidity)	One-time-password smart contract wallet eliminating seed phrase management through cryptographic OTP authentication.	2022–2023
1ns (Go/Solidity)	ENS-style decentralized naming service for Harmony using Go and Solidity.	2022–2023
Kanga Finance (Solidity)	SushiSwap-inspired decentralized exchange implementing AMM pools, LP emissions, staking, governance, fee conversion, liquidity migration, and protocol administration.	2022–2023
EAVE (Rust)	Rust Polkadot parachain supporting DeFi applications, validator infrastructure, governance, tokenomics, runtime architecture, and technical whitepapers.	2020–2022
Harmony	Layer-1 blockchain infrastructure including mainnet launch, validator onboarding, staking, SDKs, Ledger integration, APIs, and ecosystem tooling.	2019–2020
Loyyal	Enterprise blockchain, transaction-processing APIs, tokenization, mobile applications, and partner integration platforms.	2016–2018
Enterprise Integration	Service-oriented platforms integrating SAP, Salesforce, payments, ecommerce, licensing, logistics, and partner ecosystems.	1999–2016

Core Technologies

Languages	Solidity, Rust, Go, TypeScript, Python
Protocol Engineering	Smart contracts, intents, settlement, AMMs, staking, lending integrations, protocol invariants
Trading Infrastructure	Execution, market data, graph construction, simulation, replay, route evaluation, strategy evaluation, MEV
Distributed Systems	Tokio, async Rust, streaming, queues, graph processing, deterministic execution, service-oriented architecture
Data Platforms	PostgreSQL, ClickHouse (evaluation), MongoDB
Cloud & DevOps	AWS, Docker, Kubernetes, Terraform, CI/CD
Observability	Datadog, PagerDuty
Blockchain	Ethereum, Base, Arbitrum, Unichain, Optimism, Polkadot, Harmony, Hyperledger
Developer Tooling	Tycho, Alloy, Substreams, Foundry
AI Engineering	AI-native software development, Codex, ChatGPT, GitHub Copilot, Claude, Graphify, PonyTail, SuperPowers, engineering workflows, architecture automation, documentation synchronization, AI-assisted code review

Technical Portfolio

Technical portfolio highlighting architecture case studies, engineering decisions, distributed systems design, trading infrastructure, protocol engineering, and implementation walkthroughs.

<https://portfolio.johnwhitton.com>

Career Experience

Principal Engineer

2018 – Present

Founder, Jincubator

- Built trading infrastructure, protocol architecture, DeFi systems, stablecoin infrastructure, and execution workflows.
- Developed Salus as a modular Rust trading platform supporting indexing, simulation, execution, replay, and strategy evaluation.
- Established AI-native software engineering practices across a ~99K-line Rust Cargo workspace comprising 13 crates, 16 top-level architecture and process documents, and 3 reusable engineering workflows, accelerating implementation, architecture documentation, and technical review while maintaining production-quality engineering standards.
- Designed intent-solving workflows across The Compact, 1inch, CoW Protocol, Uniswap, UniswapX, and Uniswap v4 hooks.
- Built supporting projects including 1wallet, 1ns, Kanga Finance, EAVE, execution tooling, and architecture documentation.

Engineering Manager / Senior Protocol Engineer

Aug 2023 – Jan 2025

Eco Inc

- Led team of 8 engineers building stablecoin payment infrastructure, programmable money systems, routing, proving, wallet, and protocol services.
- Delivered cross-chain routing, settlement, and transaction execution infrastructure across Ethereum and Layer-2 ecosystems while recruiting engineers and managing delivery.

Ecosystem Architect

Aug 2019 – May 2020

Harmony Protocol

- Supported Harmony Mainnet launch, token swap, staking infrastructure, APIs, SDKs, validator tooling, and ecosystem integrations.
- Coordinated 50+ production network upgrades, deployed 300+ nodes, supported 600+ validators, and scaled engineering from 6 to 20 engineers.

Chief Technology Officer

Jul 2016 – Jun 2018

Loyyal

- Led distributed teams building enterprise blockchain, loyalty, transaction-processing APIs, Hyperledger, private Ethereum, and partner integration platforms.

Earlier Experience

Enterprise Architect / Engineering Manager / Founder — EFI, Autodesk, Global Enterprise Solutions

- Built enterprise SOA platforms spanning SAP, Salesforce, licensing, ecommerce, payments, logistics, and partner systems.
- Led architecture across 100+ enterprise initiatives, managed \$3M+ planning portfolios, and founded consulting firm generating approximately \$800K annual revenue.

Education

Bachelor of Computer Science, University of Queensland