

John Whitton

Principal Software Engineer — Distributed Systems — Platform Engineering — Infrastructure
Rust | High-Performance Systems | AI Infrastructure
Mountain View, CA — john@johnwhitton.com — (415) 336-6194
johnwhitton.com — portfolio.johnwhitton.com — jincubator.com — linkedin.com/in/johnwhitton

Profile

Principal software engineer and technical leader specializing in Rust, distributed systems, platform engineering, high-performance backend infrastructure, and financial systems.

Over the past eighteen months, I deliberately focused more deeply on hands-on engineering in Rust, distributed systems, high-performance platform infrastructure, and AI-enabled systems, designing and implementing production-oriented systems directly. This builds on more than two decades of hands-on engineering, architecture, and technical leadership across blockchain infrastructure, payments, enterprise systems, and distributed platforms.

I combine current implementation experience with system-level architecture and technical leadership, with a particular focus on concurrency, performance, correctness, reliability, and operational clarity.

Engineering Highlights

- Designed and implemented Salus, a Rust/Tokio distributed-systems platform spanning real-time state ingestion, graph processing, bounded asynchronous pipelines, simulation, execution, replay, and analytics.
- Built and measured a retained Ethereum topology containing 3,415 tokens, 4,552 pool components, and 2,401,108 catalog routes; retained Base workloads measured 16,537 sustained and 38,462 peak route evaluations/sec.
- Engineered bounded asynchronous processing, concurrency controls, deterministic execution boundaries, exact arithmetic, state-freshness controls, telemetry, and multi-chain processing across EVM networks.
- Consulted on DeFi infrastructure spanning leverage tokens, auction-based rebalancing, Morpho lending integrations, CoW Protocol execution, ERC-6909 accounting, and protocol invariants.
- Led engineering for stablecoin payment infrastructure, cross-chain settlement, routing, proving, wallets, and Layer-2 transaction execution at Eco.
- Designed and implemented Kanga Finance, a Solidity-based DEX spanning AMMs, liquidity, staking, incentives, yield strategies, flash loans, and protocol administration.
- Designed and implemented EAVE, a Rust/Substrate Polkadot parachain and DeFi platform spanning runtime modules, staking, liquidity, EVM compatibility, APIs, and cross-chain architecture.
- Led engineering teams and technically complex initiatives, including an 8-engineer Eco team and Harmony engineering growth from 6 to 20 engineers.

Representative Engineering Work

Salus (Rust)	Designed and implemented a Rust/Tokio distributed platform processing real-time market state through graph construction, affected-route selection, simulation, execution, replay, and analytics. Retained Ethereum topology contained 2.4M+ catalog routes; bounded asynchronous pipelines, deterministic execution boundaries, exact arithmetic, freshness controls, and telemetry support block-sensitive multi-chain processing.	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.	2025–2026
Eco (Solidity/TypeScript)	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)	Designed and implemented Solidity DEX infrastructure spanning AMM pools, multi-asset liquidity, staking, protocol incentives, yield strategies, flash loans, fee conversion, and liquidity migration.	2022–2023
EAVE (Rust)	Designed and built a Rust/Substrate Polkadot parachain and DeFi platform spanning runtime modules, consensus integration, governance, staking, liquidity, EVM compatibility, APIs, and cross-chain architecture; deployed standalone testnet and parachain environments.	2020–2022
Harmony (Go/Solidity)	Layer-1 blockchain infrastructure including mainnet launch, validator onboarding, staking, SDKs, Ledger integration, APIs, and ecosystem tooling.	2019–2020
Loyyal (Go)	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	Rust, Solidity, Go, TypeScript, Python
Platform Engineering	APIs, SDKs, runtime components, state synchronization, developer tooling, service-oriented architecture
Distributed Systems	Rust, Tokio, async/concurrency, streaming, bounded queues, graph processing, state freshness, deterministic execution
Data Platforms	PostgreSQL, ClickHouse (evaluation), MongoDB
Cloud & DevOps	AWS, Docker, Kubernetes, Terraform, CI/CD
Observability	Datadog, PagerDuty
Blockchain / Runtime	Ethereum/EVM, Base, Arbitrum, Unichain, Optimism, Polkadot, Substrate, FRAME, Harmony, Hyperledger
Trading / Financial Systems	Market data, execution, simulation, replay, payments, settlement, DeFi, MEV
Developer Tooling	Tycho, Alloy, Substreams, Foundry
AI Infrastructure	AI-assisted engineering, evidence/data pipelines, evaluation workflows, architecture automation, Codex, ChatGPT, GitHub Copilot, Claude

Technical Portfolio

Selected technical evidence covering distributed-systems architecture, Rust implementation, platform engineering, trading infrastructure, protocol engineering, architecture decisions, and source-backed code walkthroughs. Detailed material is available for technical review.

<https://portfolio.johnwhitton.com>

Career Experience

Principal Engineer / Founder

2018 – Present

Jincubator

- Since 2025, deliberately focused more deeply on hands-on engineering, designing and implementing Rust distributed systems, high-performance platform infrastructure, trading systems, DeFi protocols, and supporting technical research.
- Designed and implemented Salus across market ingestion, graph-based evaluation, simulation, execution, replay, strategy analysis, telemetry, and deterministic evidence boundaries.
- Consulted on DeFi leverage-token infrastructure, auction-based rebalancing, lending integrations, intent execution, and protocol invariants.
- Built and contributed to blockchain and protocol systems including 1wallet, 1ns, Kanga Finance, EAVE, solver/intent infrastructure, and supporting engineering tooling.
- Applied AI-assisted engineering workflows across implementation, architecture, testing, documentation, and code review while retaining deterministic engineering and validation boundaries.

Engineering Manager / Senior Protocol Engineer

Aug 2023 – Jan 2025

Eco Inc

- Led a 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, 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 a consulting firm generating approximately \$800K annual revenue.

Education

Bachelor of Computer Science, University of Queensland