Gary Kocsis

Protocol Engineer | Smart Contract Engineer

Available for NYC hybrid roles • 610-554-9722 • gkocsis99@gmail.com

Portfolio • LinkedIn • GitHub • Standby • RangeGuard

PROFESSIONAL SUMMARY

I build Solidity protocols and Uniswap v4 hooks, with a background in institutional trading and brokerage systems. I write protocol specifications and define invariants before implementation, then verify contract behavior with Foundry.

OPEN SOURCE PROTOCOL ENGINEERING

Standby - Uniswap v4 Protocol | ETHOnline 2026, ETHGlobal

- Designed and implemented Standby, a Uniswap v4 protocol providing bounded future execution capacity from shared AMM liquidity without dedicated reserves or pre-positioned liquidity.
- Defined the protocol architecture, state transitions, and trust boundaries from an explicit economic agreement. Enforced the backing invariant that supporting AMM capacity must cover outstanding obligations.
- Verified the backing invariant and exercise lifecycle through fuzz and stateful invariant testing with independent reference calculations; deployed to Base Sepolia and executed the canonical lifecycle through the official Uniswap stack.

RangeGuard - Uniswap v4 Protocol | Atrium Uniswap Hook Incubator

- Designed and implemented a Uniswap v4 hook that funds impermanent loss coverage with a portion of each swap fee and calculates accrual using the Actual/365 Fixed convention. Verified coverage accounting with Foundry unit, fuzz, and invariant tests.
- Built a dashboard that reconstructs LP coverage and settlement history from on-chain event logs.

PROFESSIONAL EXPERIENCE

Macro | Instruction Resident · Contributor | Remote | March–November 2022

- Reviewed student Solidity smart-contract projects for security vulnerabilities and code-quality issues, documented potential findings in shadow-spec documents, and provided actionable feedback to strengthen contract design. Selected security reviews.

JPMorgan Chase - Vice President | 2009–Present

- Managed conversion development for the migration of more than one million Chase brokerage accounts from Fidelity's National Financial Services platform. Wrote SQL to reconcile mapped fields against source data.
- Designed and built the Required Minimum Distribution (RMD) questionnaire application using DB2 and COBOL stored procedures. Coordinated conversion job execution for the migration of 815,000 retirement accounts.
- Developed the electronic prospectus delivery process for a campaign that increased paperless adoption from 1% to 11% across more than 800,000 customers.

Bear Stearns - Associate Director | 1998–2008

- Architected migration to FIX XP2, enabling global 24x7 trading while reducing client downtime from approximately three hours to under five minutes.
- Designed cross-domain routing and direct exchange connectivity for institutional FIX clients.
- Designed a FIX trade capture platform that processed approximately 90% of the firm's trading volume for regulatory reporting and enterprise audit trails.

TECHNICAL SKILLS

Protocol Engineering: Solidity • Foundry • Uniswap v4 • Protocol Architecture • State Machines • Invariants • Fuzz/Invariant Testing • Token Engineering

Engineering: TypeScript • Java • Python • SQL • AWS • Kafka • Kubernetes • Terraform

EDUCATION

MBA, DeSales University

B.S. Applied Mathematics-Economics, Brown University

PROFESSIONAL DEVELOPMENT

Macro Fellowship Engineering Program | January–February 2022

Completed a six-week Ethereum/Solidity bootcamp focused on security and auditing, building an AMM, a DAO with ECDSA voting, and token fundraising contracts.

Token Engineering Academy | Token Engineering Fundamentals | April–June 2024

Stanford Center for Professional Development | Certificate in Advanced Computer Security | 2018

Certifications: AWS Solutions Architect Professional • AWS DevOps Engineer Professional • Terraform Associate