Boldizsár **Kovács**

Senior Fullstack Engineer · Blockchain Developer

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Summary

Software engineer with 9+ years of experience.
Significant experience with backend and full-stack development, smart contracts, dApps and FinTech.
Interested in software performance and writing clean code.
Fast learner, always up for a challenge. Keen on understanding the low-level workings of tech and enjoying the grind of debugging.

Projects

- Financial applications and infrastructure for daily trading activities (FlowTraders, TORA, ITIVITI)
- Data verifiability solutions relying on blockchains (Weavechain)
- Custom stablecoin - Rust contract
- Trustless bridge: Substrate Solochains -> Solana
- Custom token bridge with vesting: Ethereum -> Solana
- dApp with custom NFT based roles & NFT awarding logic
- Mathematical model and software for predicting the dynamics of the COVID-19 pandemic

Skills

general-purpose languages	Java, Ts, Js, C#, Rust, groovy, Python
databases	Postgres, MongoDB, MySQL, Apache Cassandra, SQLite
smart contract languages	Solidity, Rust
frameworks/tools	Spring Boot, NodeJs, React
ci/cd	git, Docker (Compose), Jenkins, Bamboo
messaging	Kafka, RabbitMQ
Operating systems	Linux, MacOS, Windows

Experience

Custom Token Bridge

Full-stack dApp developer _Jun. 2025 - present_

- Ethereum -> Solana custom token bridge using Wormhole
- Wrote the Ethereum contract for locking tokens and emitting a Wormhole message
- Wrote backend for relaying Wormhole VAAs to Solana (Wormhole Core Contract)
- Wrote Solana contract for deserializing posted VAA bytes on Solana and register a vesting schedule if everything checks out
- Wrote a custom Vesting contract on Solana
- Backend: Typescript, Frontend: React

CSOV - Trustless Bridge

Solana smart contract developer | Full stack _Jan. 2025 - Jun. 2025_

- Implemented a trustless lock-and-mint bridge between Substrate (Polkadot) Solochains and Solana
- Designed the system to be completely trustless: the Solana side trusts only cryptographic verifications
- Handle auditing process: communicate with auditor and code-fixes
- NodeJs backend for monitoring the source chain and relaying proofs to Solana
- React frontend with wallet integrations (Metaplex, Solflare, Subwallet) and signing transactions, displaying progress, etc
- Biggest challenges: verify Polkadot's native signatures on Solana; Solana's transaction size limitations; Solana's Compute Unit limitations
- Technologies used: Rust smart contracts, Node.js, ExpressJs, PostgreSQL, Docker, React

CSIA - NFT gated dApp

Full-stack dApp developer _May. 2024 - Dec. 2024_

- Created an NFT gated dApp leveraging Solana's SPL token standard and Metaplex
- Wrote custom NFT gating logic and a backend from scratch
- Dynamically generated NFT metadata (image, description, etc.) on the backend
- Collaborated with the client in identifying requirements and issues
- Technologies used: Solana, SPL token standard, Metaplex, Java, React, PostgreSQL, Docker, Docker Compose

csprUSD - Custom Stablecoin

SMART CONTRACT DEVELOPER | FULL-STACK DAPP ENGINEER   *Jan. 2024 - Apr. 2024*

- Design and implement in Rust a stablecoin contract on Casper (blockchain)
- Handle auditing process: communicate with auditor and code-fixes
- Develop infrastructure (frontend for interacting with the blockchain, off-chain backend, database)
- Collaborate in identifying requirements and issues.. Keeping in touch with the smart contract auditing firm
- Skills acquired: smart contract design and implementation, Rust language, REST API design, Docker
- Technologies used: Rust smart contracts, Casper Blockchain, Casper Wallet, Java, PostgreSQL, Docker, Docker Compose, React

Weavechain

SENIOR FULLSTACK ENGINEER   *Mar. 2022 - Oct. 2023*

- worked on Weavechain, a distributed system leveraging blockchain technology for data verifiability
- Worked on the majority of the codebase, from smart contracts, through Java backend to database integration and frontend development
- Improved efficiency of the smart contracts used for storing data hashes on-chain
- Monitored and measured backend performance. Identified bottlenecks and rewrote code for improved throughpu
- Skills acquired: Smart contract development in Solidity, Java performance monitoring and improvements, backend - blockchain interactions (ethereum, hyperledger sawtooth), Geth, C#, cryptography, multi-threaded Java development, frontend development using React
- Technologies used: Java, Yourkit, blockchains (Ethereum, Hyperledger Sawtooth, Celo, Ganache), databases (Postgres, MongoDB, Apache Cassandra), Websockets, Docker, Kafka, RabbitMQ, React

Coherent Solutions

JAVA SOFTWARE ENGINEER   *Jun. 2021 - Mar. 2022*

- work on microservices for supporting call center automation. Maintenance and continuous support for legacy components
- Experience: main focus was designing and developing from scratch a Spring Boot application acting as a Workforce Manager (WFM) to be integrated with the rest of the infrastructure
- Extras: developed tools for extracting meaningful information from logs for analytics
- Technologies used: Spring Boot, Hibernate, Junit, SonarCube, maven, git, Jenkins, Windows OS, OAuth

Flow Traders

JAVA SOFTWARE ENGINEER   *aug. 2019 - June. 2021*

- Responsibilities: develop and design microservices supporting daily trading activities involving coding of systems for receiving market data and placing orders, handling data in a reliable, performant and traceable manner
- Skills acquired: writing object-oriented code to high quality standards based on best recommendations and best practices; software analysis and design using design patterns and concurrency patterns; critical thinking and refactoring; scoping and estimation skills; effective communication skills (verbal and written) in team and across the teams;
- Tech stack: Java, Kafka, gRPC, Junit, SonarCube, maven, git, Bamboo Oracle Database, Linux OS, React

ITIVITI

SOFTWARE ENGINEER   *jun. 2018 - jul. 2019*

- Responsibilities: design and develop a financial application
- Skills acquired: object oriented analysis and design using design patterns; refactoring; scoping and estimation skills; effective communication skills (verbal and written);
- Technologies used: Java, Groovy, C#, Junit, Spock, git, Gerrit, Gradle, Jenkins, JIRA

TORA Trading Services

SOFTWARE ENGINEER   *Aug. 2016 - Jun. 2018*

- Responsibilities: design and develop a financial application
- Skills acquired: object oriented analysis and design using common design patterns; scoping and estimation skills; effective communication skills (verbal and written); UNIX OS; profiling
- Technologies used: Java, JUnit, git, Yourkit, Apache ant

Honors & Awards

2012	**Gold medal**, "Ariel" International Mathematical Team Olympiad
2015	**Bronze medal**, "Ariel" International Mathematical Team Olympiad
2016	**Bronze medal**, Catalysts Coding Contest

Education

Technical University of Cluj-Napoca   *Cluj-Napoca, Romania*

M.S. IN COMPUTER SCIENCE AND ENGINEERING   *Oct. 2016 - Jul. 2018*

Technical University of Cluj-Napoca   *Cluj-Napoca, Romania*

B.S. IN COMPUTER SCIENCE AND ENGINEERING   *Oct. 2012 - Jul. 2016*