

# Boldizsár Kovács

SENIOR FULLSTACK ENGINEER · BLOCKCHAIN DEVELOPER

 mrkobold |  mrkobold

## Summary

Software engineer with 9+ years of experience.

Significant experience with smart contracts, dApp development and FinTech Solutions, blockchain enthusiast.

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

- Trustless bridge from Polkadot Solochains to Solana
- dApp with custom NFT gated login & NFT awarding logic
- Custom stablecoin (Rust contract)
- Data verifiability solutions relying on blockchains
- Financial applications and infrastructure for daily trading activities (companies: TORA, ITIVITI, FlowTraders)
- Mathematical model and software for predicting the dynamics of the COVID-19 pandemic

## Skills

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

## Experience

### CSOV - Trustless Bridge

SOFTWARE ARCHITECT

Jan. 2025 - Present

- Implemented a trustless lock-and-mint bridge between Polkadot Solochains and Solana
- Designed the system to be completely trustless, that is the Solana side trust only cryptographic verifications
- Wrote a NodeJs backend for monitoring the Polkadot Solochain and relaying proofs to Solana
- Worked on React frontend where users can connect wallets, sign transactions, see progress, etc.
- Challenges: check Polkadot's native signatures on Solana, Solana's transaction size limit, Solana's compute unit limit
- Technologies used: Rust smart contracts, NodeJs, ExpressJs, PostgreSQL, Docker, React

### CSIA - NFT gated dApp

SOFTWARE ARCHITECT

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

### cspUSD - Custom Stablecoin

SOFTWARE ARCHITECT

Jan. 2024 - Apr. 2024

- Design and implement in Rust a stablecoin contract on Casper (blockchain).
- 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 throughput
- 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

Oct. 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

## Paddy Power Betfair

JAVA DEVELOPER

May. 2019 - Oct. 2019

- Responsibilities: develop microservices related to login, user session management, session caching and user authentication for a complex web application; use of continuous integration and deployment approaches; write well designed, testable, efficient code; ensure quality of product, by extensive code reviews; ensure designs and implementation are in compliance with specifications
- Skills acquired: object oriented analysis and design using design patterns; refactoring; scoping and estimation skills; effective communication skills (verbal and written);
- Tech stack: Java, Spring, Cougar framework, Kafka, Junit, Tomcat, chef, maven, git, TargetProcess, Jenkins, Oracle Database, MacOS

## ITIVITI

SOFTWARE ENGINEER

jun. 2018 - apr. 2019

- Responsibilities: design and develop a financial application; continuous contribution in all phases of the development lifecycle; write well designed, testable, efficient code; ensure quality of product, by extensive code reviews; ensure designs and implementation are in compliance with specifications
- 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; continuous contribution in all phases of the development lifecycle; write well designed, testable, efficient code; ensure designs and implementation are in compliance with specifications
- 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

