

Jack Mcmurdo

Senior Blockchain Engineer

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📍 Helsinki, Finland

Profile

Driven and accomplished **Blockchain** Engineer with over 7 years of experience, combining strong theoretical knowledge, practical expertise, and exceptional problem-solving abilities.

Developed blockchain solutions across both **protocol** and **application** layers, delivering robust applications with a strong emphasis on security, scalability, availability, and reliability.

Skilled in utilizing various **DeFi** protocols and staying ahead with emerging blockchain technologies.

Professional Experience

Senior Blockchain Engineer

2022.05 – 2024.10

TaikoLabs

- Developed **account abstraction** wallets from scratch (for chains without Safe SDK support) and utilized **Safe SDK** to implement **smart contract wallets** on a Multi-chain Rewarding Platform, earning positive feedback from over 100,000 users.
- Deployed a **Layer 2** blockchain using **Polygon CDK**, encompassing the creation of smart contracts, integration of efficient **bridging mechanisms**, and design of intuitive user interfaces, achieving improved scalability and significantly lower transaction costs.
- Contributed to the development of a **DEX**-focused Layer 1 blockchain leveraging CosmosSDK and **Chain Abstraction** technology, integrating EVM chains, Bitcoin, and Solana.
- Contributed to the design and implementation of Frontend and Backend systems, integrating **Web3** and **third-party** services using technologies such as **React.js**, **Node.js**, **Express.js**, Apollo, GraphQL, Subgraph, Web3.js, Ethers.js, and MongoDB.
- Implemented unit testing, integration testing, and fuzz testing utilizing **Hardhat**, **Foundry**, Chai, Jest, and Echidna, achieving over 90% code coverage.
- Conducted over 200 code reviews, providing constructive feedback and guidance while mentoring junior developers to enhance their skills and code quality.
- Worked closely with the DevOps team to design and implement an automated **CI/CD pipeline** leveraging GitHub Actions, AWS, Docker, and Kubernetes.

Blockchain Developer

2019.09 – 2022.04

PureCrypto

- Contributed to the development of smart contracts and backend systems for 10+ projects, including Token Bridge, NFT Marketplace, and Tokenomics, utilizing technologies such as **Solidity**, **Golang**, Rust, Python, Node.js, and Express.js.
- Contributed to the development of a zero-knowledge (ZK) verification system leveraging **ZK Proof technology**.
- Developed an **event-driven architecture** leveraging Kafka, Node.js, Web3.js, and Ethers.js for the implementation of an RWA tokenization project.
- Integrated the **Uniswap protocol** into the Energyverse project, enhancing token swap functionality and significantly improving the user experience for over 5,000 platform users.
- Conducted thorough audits of smart contracts and implemented advanced security measures to strengthen product reliability.

FullStack Developer

2017.07 – 2019.08

Monad

- Developed over 5 projects, including a Healthcare SaaS Platform and an E-commerce platform, utilizing JavaScript/TypeScript frameworks such as **React.js**, **Vue.js**, Node.js, and Express.js.
- Developed a scalable and resilient **microservice architecture** to enhance the functionality and reliability of the payment system.
- Led the development and deployment of **CI/CD pipelines** utilizing GitHub Actions, Docker, and AWS CodePipeline, achieving a 40% reduction in deployment time and doubling release frequency from monthly to bi-weekly.

Education

Bachelor's Degree in Computer Science
University of Helsinki

2013 – 2017

Skills

Programming Languages — Solidity, Rust, Golang, JavaScript, TypeScript, Python, C++

Blockchain — Account Abstraction, Chain Abstraction, Uniswap Protocol, Aave Protocol, Safe Protocol, Zero Knowledge, LayerZero protocol, Hardhat, Foundry, Web3.js, Ethers.js, Wagmi, Subgraph

FullStack — React.js, Next.js, Vue.js, Redux, MUI, Apollo, Node.js, Express.js, Nest.js, GraphQL, MongoDB, MySQL, PostgreSQL, Redis, Kafka

Others — Git, GitHub, AWS, Jira, Docker, Kubernetes