

# Sebastian T F

## Smart Contract Engineer Coinvise

Ambitious developer with experience in smart contract and web development, with interests in Web3 security, ZK, MEV and DeFi

Conducts EVM deep dives for opcode level understanding and **low level EVM** expertise

Advanced gas optimizations using **Yul**

Leverages Solidity **IR**-based compilation for low level inspections and optimizations

Follows past audit reports and post-mortem reports on Code4rena, Sherlock and Immunefi

Completed **CTFs** include Ethernaut, Capture The Ether, Damn Vulnerable DeFi

Backend applications with **NestJS**, Koa, Express

Interested in **MEV** developments and long-tail strategies

Deployed **AutoCompoundor** bot for Revert Finance with **concurrency optimizations** gaining a short term edge

Knowledgeable in developing high performant bots and tools using **Rust**

EVM / RPC tricks using **state override** and **access lists**

[encode.club](#) ZK Bootcamp

Interested areas include **ZK Audits** and **security in ZK** powered applications, blockchains, rollups

Fuzz tests and Invariant testing using **Foundry**

**Hardhat** based project development expertise

Template repos maintained:

- [solidity-template](#) (forked from PaulRBerg's hardhat-template)
- [typescript-template](#) - TypeScript template
- [ts-eth-template](#) - Ethereum TypeScript template
- [rs-eth-template](#) - Ethereum Rust template

Developed advanced on-chain gas estimation with state overrides and access lists: [estimate-gas-client](#)

Overall 5+ years of experience in software development with 2+ years focused on Web3

[github.com/sebastiantf](https://github.com/sebastiantf)

[linkedin.com/in/sebastiantf](https://linkedin.com/in/sebastiantf)

[gitcoin.co/sebastiantf](https://gitcoin.co/sebastiantf)

[devfolio.co/@sebastiantf](https://devfolio.co/@sebastiantf)

[sebastian.tharakan97@gmail.com](mailto:sebastian.tharakan97@gmail.com)

## SKILLS

Solidity

Typescript

Rust

Foundry

Hardhat

Ethers.js

Waffle

ENS

OpenZeppelin Contracts

Subgraphs

Truffle Suite, Ganache

Hyperledger Sawtooth

Hyperledger Fabric

Node.js

NestJS

Express

Koa

Django

Java Spring, Spring Boot

JUnit, Mockito

Testing

Kubernetes

Docker, Docker Compose

Helm

Azure

DevOps

Concourse CI

NewRelic

Android

JavaScript

Bootstrap

MongoDB

PHP

Python

## PROFESSIONAL EXPERIENCE

### Smart Contract Engineer

#### Coinvise, Aug 2021 - Present

- Developing smart contracts for the Coinvise platform
- ERC-1967 proxies, Proxy Factories, ENS registrar, ERC-1167 Minimal Clones, Merkle Trees, ECDSA Signatures, Native Meta Transactions
- ERC20 & ERC721 Claimable Campaigns
- Unlock Protocol integrations + hooks
- NFT Memberships
- Developed CoinDesk DESK token
- Developed **NestJS** backend system from scratch to manage DESK token rewards
- Collectives with Dividends, Merkle Airdrops, Vesting, ERC20 templates + meta txn factories
- Campaigns, ERC721TokenFactory, UnlockFactory, AirdropOnPurchaseGrantHook, MembershipsFactory, MembershipsProxy, Memberships, DESKToken, QuestRewards, CoinviseENSRegistrar, DividendManager, CollectiveFactory, Collective, MerkleAirdropFactory, MerkleAirdrop, ERC20TokenFactory, VestingFactory, VestingProxy, Vesting

### Gitcoin KERNEL Block III

#### May 2021

- Developing YieldNFT
- Incredible Web3 + Crypto community

### Devfolio Ethereum India Fellowship 2.0

#### Feb 2021 - Apr 2021

- Developed YieldNFT - peer-to-peer marketplace for generating yield from idle NFTs
- Mentorship from James Young (Collab.land, Abridged)

### Systems Engineer

#### Tata Consultancy Services, Sept 2020 - Nov 2021

- Developing scalable enterprise-grade microservices for M&S
- Spring Boot, JUnit tests with Mockito
- Kubernetes deployment + configurations using Helm charts
- Docker
- Concourse DevOps pipelines
- NewRelic logging & monitoring

### Gitcoin Freelance Bounties

#### Gitcoin, Sept 2019

- Contributed to Gitcoin Core, Ethereum.org, HOPR Net, blockchain-etl, Arweave, etc.

## AWARDS

### Smart India Hackathon 2020 Winner

Jute Board, Ministry of Textiles, AICTE, MHRD India, Aug 2020

Developed jute sacking bag supply chain tracking application using Hyperledger Fabric

### Game Oasis Blockchain Hackathon Winner

#### Matic - Axie Infinity, Oct 2019

Winner of bounties proposed by Matic, Axie Infinity and Celer Network

Developed prototype for betting platform to bet on Axie Infinity battles.

Successfully deployed a retro game on the CelerX mobile gaming platform

### Smart India Hackathon 2019 Winner

#### AICTE, MHRD India, Mar 2019

Developed a blockchain-based Farm To Fork traceability solution with Hyperledger

## CERTIFICATIONS

### AZ-900

Microsoft Certified: Azure Fundamentals

May 2021

### GCP Fundamentals

Core Infrastructure

Sept 2019

## EDUCATION

### Bachelor's Degree

Computer Science

Aug 2016 - May 2020

Completed B.Tech Computer Science from APJ Abdul Kalam Technological University