THEO DALE

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Full-stack software engineer specializing in Solidity smart contract development and dapp/protocol design. Based in London but available for remote work.

Languages

Solidity, TypeScript, Python, HTML, CSS, SQL, Ruby.

Tools

Hardhat, Foundry, OpenZeppelin, ethers.js, EthereumJS, The Graph, React, Next.js, Tailwind, Ruby on Rails, Prisma, Vite, Git, Linux, PostgreSQL, Poetry, web3.py, Node.js.

Experience

Sorites

July 2023 - Jan 2024

Helped design and build an on-chain fixed yield wrapper for Uniswap V3 and Aave V3. Used Foundry to build the smart contracts in Solidity and built a web app for them with Next.js in TypeScript. Also helped write the whitepaper and technical documentation.

Also built a blockchain simulator TypeScript library using EthereumJS. This ran historical mainnet transactions alongside custom simulation transactions from a fork block and was used for backtesting the fixed yield contracts.

Brevan Howard

January 2023 - July 2023

Helped design and build a Polygon liquid staking ERC4626 vault with novel features requested by the Polygon Foundation. Hardhat and Solidity were used for the smart contract implementation and off-chain maintenance components were written in Python utilising web3.py. The vault is currently deployed on mainnet with a TVL of $50 Million and is being used by the Foundation.

Also built and designed on- and off-chain P2P options infrastructure. This consisted of a set of Solidity contracts that executed option business logic, a number of maintenance cronjobs required for the operation of these contracts written using Python and web3.py, and an AWS Lambda function, also written in Python/web3.py, that utilised AWS KMS for signing collateral requirements.

Compass Labs

July 2022 - October 2022

Built a Python package that obtained a variety of data related to the Balancer protocol, stored it in a PostgreSQL database, and made it available in an ML environment to enable AI-managed LP. Also built a centralised ERC4626 vault for Balancer LP that could be used to implement the AI's strategies.

Sodium

May 2022 - November 2022

Designed and developed a lending protocol utilizing NFT collateral in Solidity, incorporating both peer-to-peer and pool-based liquidity methods. The protocol allowed for the structuring of loans from various sources, each offering distinct terms. It supported both ERC721 and ERC1155 tokens as collateral, with collateral for unsettled loans being auctioned off. Over its operational period, the protocol successfully issued loans with a total value of over $500,000.

Changeblock

July 2021 - May 2022

Built a variety of products centered around climate-positive tokens, including an ERC20 / ERC721 marketplace, multi-stage crowdfunding contracts, and a green index of carbon credit tokens.

Pilio

November 2020 - July 2021

Used Ruby on Rails to develop a farm carbon/biodiversity analysis platform. The front-end utilised Bootstrap, PostgreSQL was used to store data, and the app was deployed on Heroku.

Education

University of Bath: MSc Computer Science

Created a smart contract-based provenance system which tracked the ownership of ERC-721 product-representing tokens for my dissertation.

Imperial College London: BSc Physics

Carried out a Python-based final year project which involved using a MCMC sampling algorithm to re-analyze Eddington's 1919 eclipse data.