

CLÉMENT ROURE

Blockchain Full-Stack Engineer |  

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EDUCATION

Engineering School - Fintech major, ESILV 2018 - 2024

Smart contracts - Blockchain architecture - Advanced web development - Cryptocurrency market

Cryptography - Lightning network - Hyperledger - Quantum computing - Machine learning

SKILLS

Languages	Solidity, Rust, TypeScript, Python, SmartPy, Dart, Bash, C#, PHP, SQL
Technologies	React, Next.js, Redux, Tailwind css, Node.js, Nest, GraphQL, .NET, GCP, AWS, Docker, Jest Ethers.js, Hardhat, Foundry, PostgreSQL, MongoDB, Firebase, Git, Linux, Flutter, Unity
Soft Skills	5-year continuing education, Leadership, Public speaker, Agile methodology, DevOps, French (native), English

EXPERIENCE

Every Finance - Decentralized ETFs May 2023 - Present | Remote, United States
app.every.finance

Real-time monitoring system for wallet balances:

- Developed a Node.js **backend to monitor** the **balances** and the **estimated USD values** of several wallets and **staking rewards** across multiple EVM blockchains.
- Devised efficient algorithms to gauge the value of **LP tokens** from notable DEXs including **Uniswap V2/V3**, **Curve Finance** and **Balancer**.
- Run in a **Docker container**, on a **GCP** virtual machine.

Portfolio manager DApp:

- Conceived and implemented a **portfolio manager DApp**, empowering fund managers to seamlessly interact with smart contracts across varied EVM blockchains.
- Integrated a **DeFi aggregator of aggregator** developed with LI.FI to optimize and reduce trading costs.
- **Spearheaded DevOps strategies**, streamlining the auto-redeployment of both frontend and backend utilizing Github Actions and Google Cloud Build.
- **Elevated cybersecurity defenses** by emphasizing data encryption, adding wallet signature verification middleware, ensuring the robust securement of private keys, and configuring Cloudflare.

PyratzLabs - Web3 Startup Studio Apr - Aug 2023 | Paris, France
shorturl.at/aejAM

- Built an **On-chain EVM agent-based DeFi simulator**, using TypeScript, Hardhat and ethers.js.
- Simulations run **300% faster** than the official TokenSpice Python library. My TypeScript abstract classes allow developers to quickly integrate and test their own smart contracts using this simulator.
- Stress-tested **UniswapV2/V3** and **AAVE** smart contracts. Created multiple scenarios with hundreds of agents interacting with each other. Wrote all the documentation of the library and deployed it to a React static website.

PERSONAL PROJECTS

Blockchain Domains Aggregator

github.com/clementroure/nft-domains-aggregator

Decentralized React app where users can **search and buy domain names** from ENS or Unstoppable Domains.

- Used **TheGraph indexer** to retrieve NFT's metadata from the Ethereum and Polygon blockchain.
- Node.js back-end to **monitor live events** (registering, reclaim ownership..) using Alchemy.
- Buy domains using any web3 wallet (MetaMask, Ledger...) or credit card via Stripe.

Exclusive Social Media

github.com/clementroure/social-media

TikTok like app in which users can pay content creators and send private messages.

Web app made with React and Node.js. Mobile app made with Flutter.

- Reached **100 000+** monthly **active users** at its peak. Credit card payments with Stripe and Segpay.
- Leveraged Node.js workers for multi-threaded video compression to optimize performance.
- Challenges : Project cost control, ID verification, prevent bot attacks, encrypt users data, SEO optimization.

Other Projects

- **TezGuard** : NFT Authentication Protocol. Built in 48H during a **Tezos Hackathon**.
Smart contracts are made in SmartPy. The front-end is made with Next.js and TypeScript.
github.com/clementroure/tezguard
- **Cryptocurrency Trading Bot** : Implementation of a Statistical Arbitrage Trading Strategy in Python.
Live testing with the Coinbase Pro API.
github.com/clementroure/crypto-trading-bot
- **Solidity Projects** : Flash Loan, AMM, ZKP, Wallet Generator, Escrow, Lending Protocol.