

Yash Thipsay

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Education

| Program | Institution | %/CGPA | Year |
|-----------------------|-------------------------------------|--------|---------|
| B.Tech. (Engineering) | Vishwakarma Institute of Technology | 8.7/10 | 2021-25 |
| Class 12 (Science) | Namo Rims Jr College | 92/100 | 2020-21 |

Experience

Re-Fi Talents Cohort - Blockchain Center / Frankfurt School July 2024 - December 2024

Cohort 2 - Web3 Talents

- **Apprenticeship:** Study and contribute in the evolving field of Re-Fi, DLT and Carbon Markets
- **Tools and Technologies:** Regenerative Finance, Web3

Summer Intern - Nethermind

May 2024 - August 2024

Summer Internship 2024 - Blockchain

- **L2 Tooling:** Work as an Layer-2 Tooling Engineering Intern, developing and working on Layer-2 blockchains
- **Tools and Technologies:** Ethereum, Solidity

Rookie @ Polkadot Developers Program

September 2023 - March-2024

A mentorship program for developers programming in the Polkadot ecosystem

- **Rust:** Develop low-level Rust application, develop a file compressing/zippping folder with Rust modules. Create and develop Rust applications supporting the Polkadot ecosystem
- **Polkadot Blockchain:** Researching Polkadot blockchain. Learn how to communicate with parachains with the Polkadot mainchain using XCM communication method.
- **Tools and Technologies:** Rust, Substrate, Polkadot

Projects

1. Kaaryam Resume Analyzer AI Agent

🌐 | [Repository Link](#)

- An AI-driven application leveraging **Lighthouse Web3 storage** to store employee resumes securely in a decentralized manner. Built specifically for **small-scale businesses in India**, it helps identify the right talent for tasks by processing resumes through a sequential two-step analysis powered by the **Ollama 3.2 model** (3 billion parameters). This solution demonstrates a synergy of decentralized storage and advanced AI to empower businesses with efficient and affordable hiring processes.
- Uses Llama3.2 model to generate insights from the resume.
- **Tech-stack:** *Next.js API calling, crewAI, Llama3.2, Lighthouse Storage, IPFS*

2. TrailFinder: Connecting the Dots

[Frontend](#) | [Backend](#)

- Trailfinder by Mantravyuha is an advanced blockchain analysis tool designed to trace cryptocurrency transaction trails across multiple hops, enabling users to map both **precursor** and **successor** transactions. By leveraging **Neo4j's graph database** capabilities and **Cypher queries**, it performs **breadth-first search (BFS)** to identify **transaction layers, relationships, and cross-linked entities**. Trailfinder provides **real-time mobile alerts, mixer-tumbler detection, and OSINT integration** for enhanced **fraud tracing**. Additionally, it offers metrics like **transaction counts, input/output values, and statistical insights** at each layer. This tool is a powerful solution for **anti-money laundering (AML), fraud detection, and forensic blockchain investigations**, ensuring **transparency and accountability** in crypto transactions.
- This project has stood **first** in **Internal Smart India Hackathon** and **finalists along with 2nd rank** in **Nationals-Smart India Hackathon**
- Uses data from Ethereum and Bitcoin block-explorers, graph database and traversal, AutoEncoder and LSTM models trained on real-time data, and telegram notifications for alerts
- **Tech-stack:** *Neo4j Graph Database, ethers.js, React Forced Graphs(frontend), OSINT social media scraper*

3. **Automated Market Maker Algorithm - Smart Contract(Backend)**



- AMM of Automated Market Maker is an algorithm that enables swapping of two tokens on a network without the need for any human broker. It runs on the equation of parabola, which results in exponential changes in prices of collateral once swapped. It uses ERC-20 and ERC-1155 tokens for transactions.
- *Tech-stack: **Hardhat, Solidity, OpenZeppelin***

4. **Forta Agents - Nethermind Internship Project**



- Developed two advanced bots to monitor governance changes in DeFi protocols such as Compound V3 during internship at Nethermind. The first bot tracked critical changes in governance contract parameters, including 'supplyAPR' and 'borrowAPR', and provided real-time alerts to users when these values were adjusted, helping users stay informed about changes that affect their strategies. The second bot focused on monitoring the utilization rate, dynamically analyzing its relationship with supply and borrow rates. It provided insights into whether the protocol was incentivizing lenders or borrowers by adjusting parameters, ensuring that users could optimize their lending/borrowing positions. These bots improved the visibility and responsiveness of users interacting with decentralized finance protocols.
- *Tech-stack: **Forta-agents-module, ethers.js, lru-cache, unit testing using Jest and Forta libraries***

Technical Skills

- Programming Language: Solidity, Javascript, Typescript, Python, Rust
- Database System: Neo4j Graph Database, MongoDB, FaunaDB, IPFS
- Others: Ethereum, Bitcoin, GraphQL, Apache Kafka, Polygon, ZkSync, Git, React.js, Next.js, Node.js, Ethers.js, Web3.js, wagmi.js

Achievements and others

- Smart India Hackathon 2024 2nd rank at Nationals
- I am a rookie at Polkadot Developers Program ([Polkadot](#)).
- I am a JoinZo Ambassador(JoinZo)
- I have been Vice-President of Microsoft Learn Student Club ([MLSC](#)), VIT Pune, a student community that conducts boot-camps and inter/intra-college hackathons.
- 3x hackathons - Hackspiration, ETH-global superhack, Smart India Hackathon 2023(university).
- Hacktoberfest 2023 contributor[GitHub](#)
- I write technical blogs and informative tweets on [Hashnode](#) and [Twitter](#).
- Web3 researcher and smart contract auditor - [contract security](#) and [solidity contract testing](#)
- I am also a **Musician**, having concerts and events frequently in universities across cities, with my band.