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

GoQuant — **April 2025 - Present**
Backend Engineer ⌱

- **Backend Development:** Developing backend systems for decentralized protocols in quantitative finance. Building low latency trading and execution systems for institutional-grade financial products.
- **Tools and Technologies:** FastAPI, Python, Blockchain Infrastructure, DeFi Protocols

Gigsaw — **January 2025 - Present**
Co-founder 📱

- **Product Development:** Building the future of music spaces booking platform. Developing a comprehensive solution for the live music community to book music spaces, rent high-quality gear, and discover events in the city.
- **Tools and Technologies:** Full-stack development, Music Industry Platform, Event Management

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/zipping 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. **Neoterik AI: Cover Letter Assistant Agent** ⌱ | **Repository Link**

- A browser extension built with **Python**, **Pydantic**, **FastAPI**, and **LangGraph**, orchestrating a sequence of processes for drafting humanized cover letters. The AI agent analyzes job descriptions, matches candidate profiles, and generates personalized cover letters that pass ATS screening while maintaining a human touch. Features include real-time job posting analysis, candidate skill matching, and automated cover letter generation with customizable templates.
- Uses advanced NLP models to understand job requirements and candidate backgrounds for optimal matching.
- *Tech-stack:* **Python**, **FastAPI**, **Pydantic**, **LangGraph**, **Browser Extension API**

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 Languages: Solidity, Javascript, Typescript, Python, Rust
- Frameworks and Libraries: FastAPI, React.js, Next.js, Node.js, Ethers.js, Web3.js, wagmi.js
- Database Systems: Neo4j Graph Database, MongoDB, FaunaDB, IPFS
- Blockchain and Web3: Ethereum, Bitcoin, Polygon, ZkSync, Polkadot, Substrate
- Tools and Technologies: GraphQL, Apache Kafka, Git, LangGraph, Pydantic

Achievements and Others

- Smart India Hackathon 2024 2nd rank at Nationals
- Rookie at Polkadot Developers Program (Polkadot)
- JoinZo Ambassador (JoinZo)
- Vice-President of Microsoft Learn Student Club (MLSC), VIT Pune, a student community that conducts boot-camps and inter/intra-college hackathons
- 3x hackathons winner - Hackspiration, ETH-global superhack, Smart India Hackathon 2023(university)
- Hacktoberfest 2023 contributor GitHub
- Technical blogger on Hashnode and Twitter
- Web3 researcher and smart contract auditor - contract security and solidity contract testing
- **Musician** with frequent concerts and events in universities across cities with my band