

C4GT DMP - Proposal Template

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Current occupation <i>(Working Professionals - add current organization & years of exp)</i>	Student
Education Details <i>(College Name - Degree Name and branch of engineering or other course/specialization)</i>	College Name – Rajarajeshwari College of Engineering Branch – Computer Science and Engineering
Technical skills with level <i>(Mention tech skills/languages known/UI-UX and level - Novice/Intermediate/Expert)</i>	Languages: C, Java, JavaScript, Python Web Development: HTML, CSS, Bootstrap, Tailwind, React, Node.js, Express.js Database: MySQL, Mongo DB Machine Learning Libraries: Numpy, Pandas, Scikit-Learn, Matplotlib Platforms: PyCharm, Jupiter Notebook, IntelliJ IDEA, AWS, GitHub

Title:

Unified Cryptocurrency Portfolio Tracker with Exchange and Wallet Integrations

Summary:

This proposal outlines my plan to develop a unified crypto portfolio tracker that consolidates data from various wallets and exchanges into a single dashboard. The goal is to provide users with real-time updates on their holdings, performance metrics, and alerts. My approach focuses on building secure API integrations, data normalization, and a clean, insightful frontend.

Project Detail

1. Project Overview

a. Understanding of the project

The project aims to build a web-based portfolio tracker for cryptocurrency users. It should support integration with multiple exchanges (e.g., Binance, Coinbase) and wallets (e.g., MetaMask, Ledger). Users should be able to view balances, transaction history, and performance analytics, all in one place.

b. Issues that might come up and the support needed from org

- Dealing with varying API formats across exchanges and wallets.
- Ensuring secure storage of user keys or tokens.
- Providing real-time updates without rate limit violations.

c. Solutions

- Create modular data ingestion pipelines per source with unified schema.
 - Use OAuth or read-only API tokens with proper encryption practices.
 - Cache frequently accessed data and update it at smart intervals to avoid hitting API limits.
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2. Macro Implementation Details with Timelines

Milestone 1 (Week 1–2):

- Research APIs of popular exchanges and wallets.
- Build authentication and initial connection layer.
- Store and normalize fetched balances and transaction data.

Milestone 2 (Week 3–4):

- Develop a dashboard to visualize portfolio summary and coin performance.
- Add historical price tracking and profit/loss analytics.
- Implement refresh logic for near real-time updates.

Milestone 3 (Week 5–6):

- Add support for alerts (e.g., price drop, portfolio value change).
- Finalize responsive frontend using React/Tailwind.
- Write comprehensive documentation and deployment guide.

Availability

- **Available hours/week:** 20–25 hours
- **Other engagements:** No other current internships or full-time commitments
- **Notes:** I'm flexible with time zones and committed to attending weekly syncs or mentorship calls.

Personal Information

About Me:

I'm a developer interested in building practical financial tools, with a strong focus on usability, transparency, and real-time data systems.

Motivation:

This project resonates with my personal interest in cryptocurrencies and financial management tools. I've often felt the need for a consolidated view of my crypto assets, and building one that others can use is both exciting and meaningful. I see this as a great opportunity to deepen my full-stack development skills, contribute to open source, and work under the mentorship of experienced developers as part of the C4GT program.

Please mention if you have solved any issues/tickets for this or other C4GT projects: (Optional)

Link to to Issue	Resolution description in short	Link to pull request
https://github.com/AgentTorch/visualize/issues/3	Added example usage with inline comments for GeoPlot visualization to improve developer onboarding and open source clarity.	https://github.com/AgentTorch/visualize/pull/62

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