

C4GT DMP - Proposal Template

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Current occupation	Student, Intern at Avicen AI for 1 year
Education Details	Motilal Nehru National Institute of Technology Allahabad, Prayagraj Chemical Engineering
Technical skills with level	<p>Languages: JavaScript (Expert), TypeScript (Intermediate), Python (Expert), C++ (Intermediate), HTML (Expert), CSS (Expert)</p> <p>Developer Tools: Git, VS Code, Arduino IDE, REST APIs, GitHub Actions (CI/CD), Aceternity UI</p> <p>Frameworks and Libraries: React, Next.js, Express.js, Django, Tailwind CSS, Bootstrap, Socket.io</p> <p>Cloud and Databases: MongoDB, Azure VM, Neo4J, Google Cloud Run</p>

	AI/ML: Scikit-learn, TensorFlow, NLP , ANN, CNN, RNN, LSTM , Federated Learning, LLM Integration , Conversational Agents , AI Agent Design
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Title: Code Less, Care More: AI-Enabled Health Insights at Your Fingertips

Summary

Today's digital health systems are insight-poor but data-rich. MEDPlat is addressing this by providing program managers and implementers with greater visibility — and this project is a huge step forward.

My dream is to create a robust, yet simple, AI-powered dashboard builder within MEDPlat. Think about allowing users to build custom dashboards on the fly — no developers, no code — just drag, drop, and see insights spring to life. Combine that with an AI that not only sees but reads data and marks important trends or predictions. My strategy will mix considered UI/UX, intelligent backend reasoning, and lean AI to build a seamless experience for healthcare stakeholders.

Project Detail

1. Project Overview:

a. Understanding of the project

- **MEDPlat needs an interactive dashboard builder that enables users of varying roles to build and personalize their own dashboards without the need for programming.**
- Dashboards should dynamically retrieve data from program sources, preferably in real-time.
- There should be an added lightweight layer of AI that can aid the users in the form of trends identification, flagging, and predictive analysis right within the dashboard.
- The tool should be extremely usable and intuitive for non-technical healthcare stakeholders, favoring empowerment over complexity.
- Role-based access and customization are critical to provide data security and relevance.

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

- Knowledge of MEDPlat's intricate data models and schema. **Assistance Required:** Access to sample datasets, access to data schema, data team guidance.
- Selecting the most effective and viable AI/ML solutions for applicable use cases in MEDPlat. **Support Required:** Examples of high-priority use cases from the stakeholders.
- Enforcing RBAC and role-based customization. **Support Required:** Access to complete role definitions and knowledge of typical user workflows and necessary data access levels.

c. Solutions

- Begin with a clean mapping of MEDPlat's data structure and customary user information.
- Create reusable UI elements for tables, charts, etc., to be configured through a simple interface.
- Start the AI rollout with rule-based intelligence for short-term value, progressing towards lightweight ML models for particular, high-value prediction or anomaly detection where data is present.
- Prioritize Explainable AI by having all AI recommendations or flags accompanied by transparent, understandable explanations.
- Apply role-based access control at the levels of data fetching and dashboard setup.

2. Macro Implementation Details with Timelines:

- **Milestone 1: Getting Started & Initial Design (Week 1-2)**
- These first couple of weeks, we will spend familiarizing ourselves with the MEDPlat environment and architecture. We will also settle on the look and feel – the dashboard builder's design mockups itself – and sketch out the data we will initially need access to.
- **Milestone 2: Building the Core Dashboard (Week 3-5)**
- This is where the main dashboard builder comes to life. We'll build the system that lets those visual parts (widgets) show up dynamically, get the drag-and-drop layout working, and set up the backend connections to pull data based on user choices.
- **Milestone 3: Adding the AI Smartness (Week 6-8)**
- Now we incorporate that light AI layer. We'll begin hooking it up to examine the information and develop the rudimentary trend detection and alerting functionality based on dummy data to test out.
- **Milestone 4: User Feedback & Polishing (Week 9-10)**
- The final stretch is all about making sure it works great for users. We'll get feedback from actual program implementers, fine-tune the user interface based on what they say,

polish up the AI insights, finish the documentation, and get everything ready to hand over.

Availability

Number of hours available to dedicate to this project per week	20-25 hours
Do you have any other engagements that will require your time? (projects/internships)	Yes, an internship, but it is going to end soon in this May only

I am flexible with evening and weekend calls for critical discussions or team syncs if necessary, but prefer asynchronous communication for daily updates and task coordination.

Personal Information

I am a Bachelor of Technology student at MNNIT Allahabad with considerable interest and practical experience in full-stack development, AI/ML principles, and developing user-driven applications. I like solving important problems and eliminating the gap between intricate data and user-friendly interfaces. I've developed web apps with Next.js, Express.js, and MongoDB, implemented AI features with NLP and Gemini 2.0, and emphasized developing accessible user experiences.

What is your motivation to apply for this project? Answer briefly in 5-10 lines.

This project inspires me intensely because it's where public health meets usability meets technology innovation. Assisting government platforms such as MEDPlat to make them smarter, quicker, and easier to use directly benefiting program managers and implementers is a cause I'm passionate about. This project provides a special chance to use my full-stack development skills and expand my experience in implementing practical AI solutions and putting a strong emphasis on user experience in a significant, real-world application. I am excited to be able to contribute to something that can make a real difference.

Previous experience:

Project Name	Project Description	Links (if any)
Chanet	Engineered a high-performance full-stack web application using Next.js and Express.js, integrating Gemini 2.0 for ML model code generation and Kaggle API for dataset recommendation. Achieved high Lighthouse and SEO scores	Live: https://chanet-frontend-974929463300.asia-south2.run.app/ Github: https://github.com/kvatsal/ML-Model-Predictor
Illustrator MCP Server	Constructed an MCP server using FastAPI that converts natural language prompts into vector graphics inside Adobe Illustrator, integrating Claude Desktop for AI-driven design automation. Automated prompt conversion	Github: https://github.com/kvatsal/illustrator-mcp
Avicen AI - Health Consultancy App Backend	Engineered a robust backend for a health consultancy app using Node.js, REST APIs, Sockets, and Express, streamlining user workflows.	https://nostaviahealth.com/
CareConnect	A smart, voice-enabled medical web application	https://github.com/kvatsal/hack36

	built to connect users with certified doctors, provide real-time physiotherapy guidance via webcam and hardware(esp32 and mpu6050), and generate intelligent health reports based on user symptoms and posture analysis.	
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