**AI Finder for Urban Lab PPP Opportunity**

**Project Charter**

Project Manager: Matt Kwatinetz

Sponsor: Andres Fortino and Matt Kwatinetz

Prepared by: Jiawen Tang

Name and Location of Client Organization: NYU SPS Schack Institute for Real Estate - The Urban Lab

NYU School of Professional Studies is at 12 West 43rd Street, NY, NY.

1. **Project Goal**

The primary goal of the Urban Lab PPP Opportunity Finder project is to develop an AI-powered chatbot that streamlines the identification and ranking of public-private partnership (PPP) opportunities within urban environments.

By automating the analysis of diverse data sources, including historical projects and public information, the chatbot will generate a comprehensive, ranked list of high-potential PPP prospects complete with contact details and supporting materials. Ultimately, the project seeks to effectively contribute to creating resilient and thriving urban communities.

1. **Problem/Opportunity Definition**

The Urban Lab PPP Opportunity Finder offers a unique opportunity to leverage AI technology to automate the identification of high-impact public-private partnerships, streamline urban development processes, and enable students to engage in sustainability projects more efficiently. This tool presents significant potential for improving collaboration between the public and private sectors in city planning and infrastructure development.

The main problems of the project include the chatbot's reliance on the quality and availability of data sources, which could affect its accuracy in identifying PPP opportunities. Additionally, the AI may miss unconventional or niche opportunities that don't fit within the predefined data parameters or algorithms, limiting the tool's comprehensiveness.

1. **Proposed Project Description**

The Urban Lab, led by Professor Matthew Kwatinetz at NYU, focuses on urban development and sustainability by fostering collaboration between the public and private sectors. The lab is developing an AI-powered chatbot to streamline the identification and ranking of public-private partnership (PPP) opportunities in urban environments.

1. **Project Sponsor**

Name and Title: Dr. Andres Fortino, Professor Matt Kwatinetz

Role within the organization: Clinical Associate Professor, Clinical Assistant Professor

Role on the project: Responsible for approving project deliverables and also acts as the relevant business process expert.

1. **Objectives**

Objective 1: Gather and document the functional requirements for the AI-powered chatbot within the first 3 weeks.

• Metric: A comprehensive requirements document is completed and approved by October 1, 2024.

Objective 2: Complete the development of the AI-powered chatbot prototype within 2 months.

• Metric: The chatbot prototype is functional and ready for testing by November 10, 2024.

Objective 3: Integrate 3 data sources for chatbot analysis within 1 month.

• Metric: The chatbot successfully processes data from all sources by October 25, 2024.

Objective 4: Test the chatbot's ability to generate ranked PPP opportunities.

• Metric: Testing confirms the chatbot’s ranking functionality by November 25, 2024.

Objective 5: Refine the chatbot’s ranking algorithm based on feedback from two rounds of user testing within 1 month.

• Metric: Improved ranking accuracy and bug fixes completed by December 1, 2024.

1. **Project Selection & Ranking Criteria**

Project benefit category:

|  |  |
| --- | --- |
|  | Compliance/Regulatory |
| X | Efficiency/Cost reduction |
|  | Revenue increase |

Portfolio fit and interdependencies

This project fits within the broader efforts of The Urban Lab at NYU, which focuses on urban development and sustainability through collaboration between the public and private sectors. Specifically, this project is designed to streamline the identification and ranking of high-impact public-private partnership opportunities. It complements other Urban Lab initiatives by leveraging AI and machine learning to facilitate urban development processes. This tool aligns with the lab’s mission to improve city planning, foster sustainable development, and enhance collaboration between various stakeholders in urban environments​

Project urgency

This project appears to be relatively urgent, with a defined timeline for completion by December 5, 2024. The urgency stems from the goal of developing and deploying an AI-powered chatbot within a semester-long timeframe, with key milestones such as gathering functional requirements and completing prototype testing by specific datas.

1. **Cost/Benefit Analysis**

Tangible Benefits

Benefit: Saving substantial time and resources that would otherwise be spent on manual data collection and analysis.

Value & Probability: Estimated to reduce time spent on opportunity identification by 70% & 85% based on the reliability of AI algorithms.

Assumptions Driving Value: The AI system will have access to sufficient and high-quality data. The algorithm will perform effectively in automating opportunity ranking.

Intangible Benefits

Benefit: Enhanced collaboration between public and private sectors, promoting sustainable urban development and stronger partnerships.

Value & Probability: Improved stakeholder relationships, leading to long-term partnerships.

Assumptions Driving Value: The chatbot will be user-friendly and well-received by the Urban Lab’s partners. The public and private sectors are willing to engage in automated tools for partnership management.

Cost Categories

Internal Labor hours: Estimated 300 hours

External costs: N/A

Labor (consultants, contract labor): N/A

Equipment, hardware or software: N/A

List other costs such as travel & training: N/A

Financial Return

In the long term, this could lead to increased investment in sustainable urban infrastructure, benefiting cities that adopt the tool.

1. **Assumptions**
2. The developer has the necessary skills in AI, machine learning, and data integration to develop the chatbot
3. The project relies on the assumption that Urban Lab partners and stakeholders (e.g., public and private organizations) will actively cooperate by providing feedback, participating in user testing, and supporting the integration of the chatbot into ongoing projects.
4. It is assumed that the necessary data for identifying PPP opportunities, such as public databases, historical projects, and relevant urban development data, will be accessible and of sufficient quality for the AI algorithms to function effectively.
5. **Scope**

Quality

Quality will be determined by the chatbot's ability to accurately rank PPP opportunities and its ease of use, evaluated through user testing and feedback.

Time

The effort is limited to 300 hours and the project needs to be completed by December 5, 2024.

Resource Allocation

The Urban Lab owns the infrastructure and computer equipment necessary for programming and analysis. There will likely be a collaboration with Urban Lab faculty and technical support.

Out of scope activities

Full-scale deployment across multiple cities beyond testing with Urban Lab.

Long-term maintenance or updates to the chatbot after initial deployment.

Advanced AI features such as predictive analytics or sentiment analysis of stakeholder feedback will not be addressed in this project phase.

Constraints

1. The project assumes Builder has sufficient expertise in AI and machine learning to develop the chatbot without external consultants.
2. AI development tools and machine learning algorithms will be used, but advanced features or less critical tools (e.g., deep learning frameworks) will not be utilized.
3. Regular meetings with the project sponsor (Urban Lab faculty) are planned, but their availability may be limited to once a week for progress updates​
4. **Risks and Mitigation Strategies**
5. Data Availability and Quality:

Risk: Incomplete or low-quality data could reduce the chatbot's accuracy in identifying PPP opportunities.

Mitigation: Ensure early access to necessary data sources and test data quality before integration. Plan for alternative data sources if primary data is insufficient​.

1. Technical Development Delays:

Risk: Unforeseen technical challenges in AI development could delay the project timeline.

Mitigation: Build buffer time within the development schedule and seek technical support early if challenges arise​.

1. **Communications Plan**

1. Frequency: Regularly meetings

2. Method: Virtual meetings via Zoom

3. Content: Review progress, address questions, provide updates, and discuss next steps​

1. **Schedule Overview**

Project Start Date: September 9, 2024

Estimated Project Completion Date: December 5, 2024

Major Milestones:

1. Requirements finalized: October 1, 2024
2. Prototype ready: November 10, 2024
3. Testing completed: November 25, 2024
4. Final refinements: December 1, 2024

External Milestones Affecting the Project

1. Availability of data sources by October 25, 2024
2. Feedback from users for testing by December 5, 2024

1. **Impact of Late Delivery**

If the project is delivered late, it may delay the Urban Lab's ability to efficiently identify and rank PPP opportunities, potentially slowing down urban development initiatives. However, since this is a prototype phase, the overall impact on other projects or the Lab may be minimal, as the tool is intended for future deployment and not critical to ongoing operations​.

1. **Resources Required**

Personnel:

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Responsibilities | Duration of work | Qualifications needed |
| Developer | Develop, test, and deploy the AI-powered chatbot | Approx. 300 hours | AI, machine learning, and data integration expertise |
| Faculty Advisors | Provide guidance, review progress | Regular meetings | Expertise in project management and AI tools |

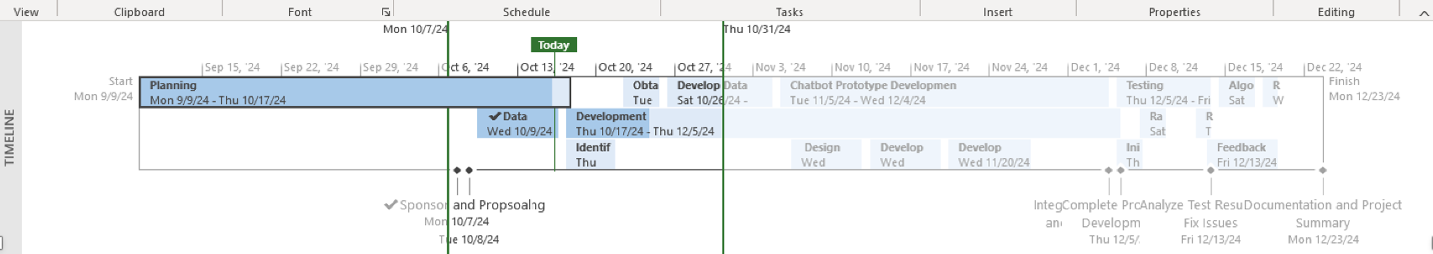
Facilities, Software, Hardware and other Resources

The project will utilize Python, TensorFlow, cloud server infrastructure, public PPP databases, laptops/servers, and ChatGPT.

Procedures/ Methodology

Use of machine learning algorithms for data processing and ranking. Agile development process with regular feedback loops.

1. **Project Plan, Gantt**

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1. **Project Evaluation**
2. Project schedule

The project will be monitored against set milestones. Progress will be tracked weekly to ensure it stays on schedule.

1. Project weekly status chart

A Gantt chart will be updated regularly to track progress. This will provide an overview of tasks completed, pending tasks, and any delays.

1. Project status reports

Status reports will be sent regularly to the Lab, summarizing progress, issues, and upcoming tasks.