Citizen AI: Intelligent Citizen Engagement Platform

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1. Abstract

Citizen AI is an intelligent web-based platform designed to enhance citizen engagement by providing timely, accurate, and context-aware information. Leveraging state-of-the-art AI language models and a user-friendly interface, the system assists users with city analytics, public services queries, and government-related information. The platform aims to improve civic awareness, facilitate informed decision-making, and streamline access to public services.

2. Objectives

- Provide detailed city-level analysis including crime rates, traffic safety, and overall safety assessments.
- Answer citizen queries about public services, government policies, and civic issues in a reliable, concise manner.
- Deliver a simple, interactive web interface for seamless citizen interaction.
- Utilize AI to reduce the workload of human public service agents and improve response time.

3. Technology Stack

- Programming Language: Python

- Al Framework: Hugging Face Transformers

- Model: IBM Granite 3.2-2B Instruct

- Interface: Gradio Web App

- Hardware: GPU (T4 recommended for Google Colab)

- Libraries: torch, gradio, transformers

- 4. System Architecture
- 1. User Input Layer: Citizens enter city names or service queries via a web interface.
- 2. Processing Layer: Al model processes input using causal language modeling with tokenization and GPU acceleration.
- 3. Output Layer: City safety analysis or civic information is returned via Gradio textboxes.

5. Features

5.1 City Analysis Tab

- Input city names to receive:
 - Crime statistics and safety index
 - Traffic accident rates and safety information
 - Overall city safety assessment

5.2 Citizen Services Tab

- Input civic or public services queries:
 - Receive accurate, government-style responses
 - Guidance on policies, procedures, or local services

6. Installation & Usage

- 1. Open Google Colab and select Runtime \rightarrow Change runtime type \rightarrow GPU \rightarrow T4.
- 2. Install dependencies:

!pip install transformers torch gradio -q

- Load the Python script containing the AI model and Gradio interface.
- 4. Run the script and open the Gradio shareable link to interact with the platform.

7. Future Enhancements

- Add multi-language support.
- Integrate real-time city data APIs.
- Include voice input/output for accessibility.
- Expand AI knowledge base for more comprehensive queries.

8. Conclusion

Citizen Al provides a practical, Al-powered solution to bridge the gap between citizens and government services. By delivering actionable insights and accurate information in a user-friendly interface, it strengthens civic engagement and simplifies access to public services.