EE/CprE/SE 492 WEEKLY REPORT 5

April 4 - April 17

Group number: 35

Project title: Universal Response Engine: LLMs for Good

Client &/Advisor: Ahmed Nazar and Mohamed Selim

Team Members/Role:

Abrahim Toutoungi - Stakeholder Liaison

Gabriel Carlson - Communications Manager

Halle Northway - Meeting Coordinator

Brianna Norman - Project Deliverables Manager

Ellery Sabado - Timeline Coordinator

Emma Zatkalik - Assignment Manager

Weekly Summary

Over this past week, we all focused on the completion of our main code base so that for the rest of the semester, we can focus on completing deliverables like the poster, presentation, and our research paper. There were small issues that came up with our LLM, but they got fixed. Some of our categories needed to have their data structured still, so we worked on finishing that, also. Ran evaluations for each category with our newer code implementation.

Past Week accomplishments
- Fixing an issue on backend with LLM returning previous responses in new responses
- Typing animation on frontend
- Adding all resources to our backend

Pending Issues
-

Individual Contributions

Name	Individual Contributions	Hours this week	Hours cumulative
Abrahim Toutoungi	- Transferred the sexual health data to CSVs - Worked on our research paper - Debugged our chatbot - Added data to datasets that didn't have enough for all 50 states - Moved all our datasets for the 50	12	117

	- states into our project - Reviewed PRs - Worked with the team to fix minor flaws in our frontend and backend to help polish our project off		
Gabriel Carlson	- Updated RAG Chains to store embedded vector dbs to local fs - Prioritized local dbs over reparsing when possible - Reviewed PRs on our gitlab - Data collection - Fixed TTS on LLM messages in UI - Updated RAG chain store to use LRU cache for GPU memory savings - Optimized LLM and FAISS memory usage	12	114
Halle Northway	- Added scrolling to typing animation applied to LLM messages - Removed old options dialog and button - Moved high contrast toggle option to sidebar - Adjusted some high constrast colors - Fixed example prompt issue introduced by output parser	10	114
Brianna Norman	- Formatted collected datasets - Researched location usage for backend - Added Resources for sexual health and immigration - Researched security methods for website	14	106
Ellery Sabado	- Collected datasets for addiction and LGBTQ+ - Converted the dataset into csv files - Collected evaluations for the categories and evaluated for csv format - Worked on a research paper and deliverables	10	113
Emma Zatkalik	- Ran evaluations for the 8 categories with our updated backend code - Worked on deliverables	10	115

Comments and extended discussion (optional)
N/A

Plans for upcoming week

- Wrap up our project
- Have first drafts ready for our poster and paper
- Clean up our code/data in general

Summary of weekly advisor meeting

Summary:
- Finish the **last tidbits of evaluation and implementation by Sunday**
- **Prioritize System Model Drawing**
  - Use Icon sets (MUI, FontAwesome, etc...)
- Get a **draft of the presentation by 4/23**
- Test presentation 4/30

For the evaluation score, average all 8 categories for the presentation
- Highlight the best category relevancy, but still include the rest at the end
- Ask more specific questions that can only be found in dataset, not general knowledge

Poster
- https://sddec20-22.sd.ece.iastate.edu/
- Include
  - Standards
  - Design Approach
  - Conceptual Sketch (System Diagram)
  - Testing
  - Interface
  - References