

Interactive, web-based visualization of scientific collaboration networks

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Project Overview

Hariri Institute for Computing and Computational Science & Engineering initiates, catalyzes, and propels collaborative, interdisciplinary research and training initiatives for a better society.

- The Institute currently has **250 faculty affiliates**. These are represented in a simple **table format** with some search capabilities. → Very overwhelming and inefficient
 - <https://www.bu.edu/hic/people-2/faculty-affiliates/>
 - Hariri Institute for Computing found it difficult to see who is involved and how they are related to each other
- Goals:
 - Provide an intuitive user experience, especially for people outside of BU, that allows for easy networking and a visually pleasing network of connected collaborations
 - Provide researchers with a tool to find similar collaborators based on their profiles
 - May serve as a base prototype for other departments

Sprint 1 User Stories, Objectives and Progress

- As a researcher, I'd like to interact with the visualization in order to make it easier to get in contact with faculty within the Institute
 - Create an API that pulls the information from the DB
- As a BU faculty member, I'd like for my contact information to be displayed if a potential collaborator were interested in working with me
 - Implement functioning database (waiting on mentor's guidance)

Technology Stack

Front-End

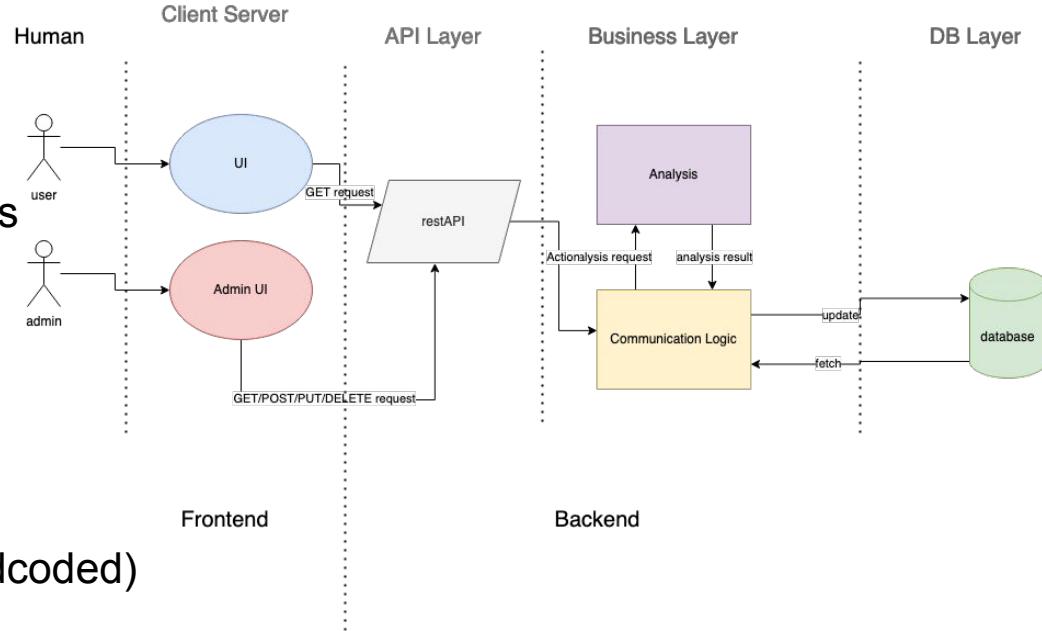
- HTML
- CSS
- JavaScript/jQuery/other frameworks
- D3.js (Data Visualization)

Back-End

- Python
- Flask

Database

- TBD (Access to a database or hardcoded)



Demo

- API Demo
- D3.js Demo
- [ASL-LEX 2.0 Visualization Example](#)

Going Forward/Next Steps and Obstacles

Sprint 2:

- As a regular user, I would like for my information to be updated frequently, so I don't miss out on opportunities
- As a user of this network I would like to privately collab with someone from different research areas because I need a team for research
- As someone not currently affiliated with computing at BU, I would like to see if there are projects that align with my interests and experience

Going Forward/Next Steps and Obstacles

Obstacles:

- Best database implementation for our project with no database currently present
- How to make the visualization more versatile in case other departments would want to use this product
 - They would conform to our platform?
 - Develop for common case in mind?

Questions?