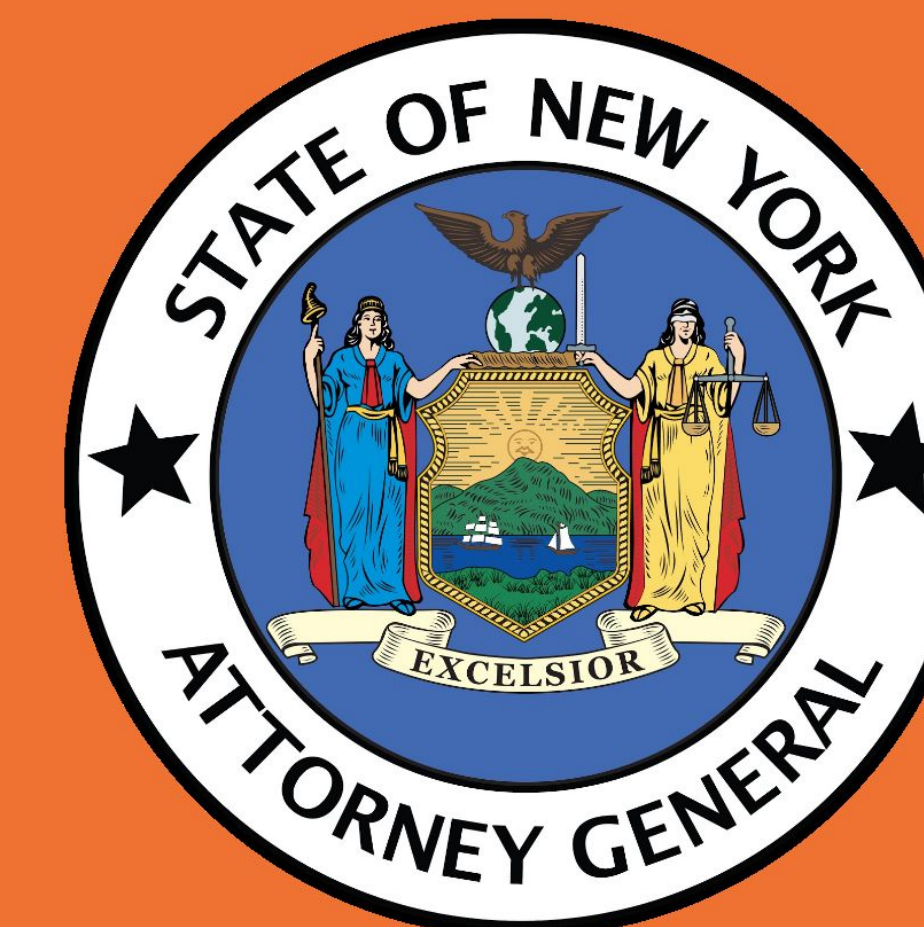# Piercing the Landlord Corporate Veil

S. Kulkarni, V. Zhong, N. Weber, S. Bana

Prof. Debra Laefer, Prof. Huy T Vo

Project Context

Sponsor

- The Research Department in the Office of the New York State Attorney General (OAG). A part of the Executive Division that works closely with senior staff to support their major initiatives, investigations, and policy developments.

Background:

- The OAG serves all New Yorkers in numerous legal and regulatory arenas. One of which is combatting harmful landlord practices, such as tenant harassment, deed theft or bank fraud.
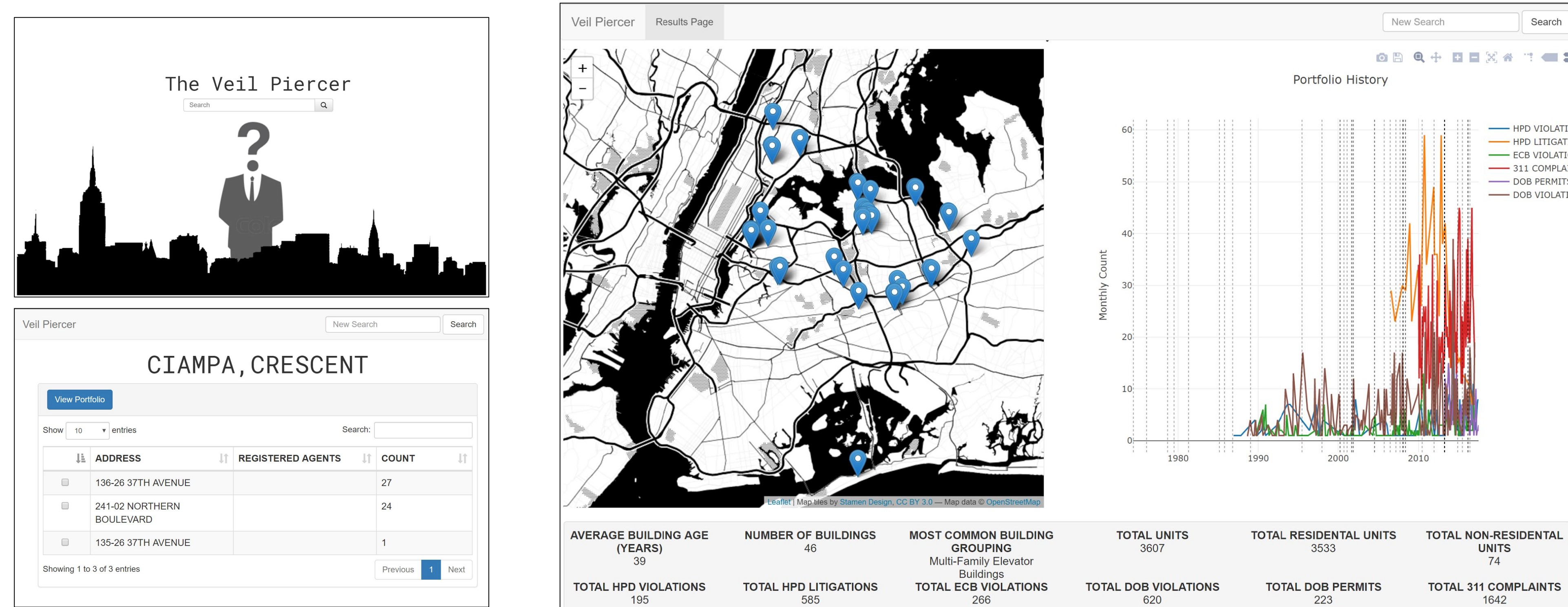
Objective:

- Provide additional technical means to support attorneys in cases that involve tenant harassment or fraud by developing a tool that helps maximize the use of the available information.
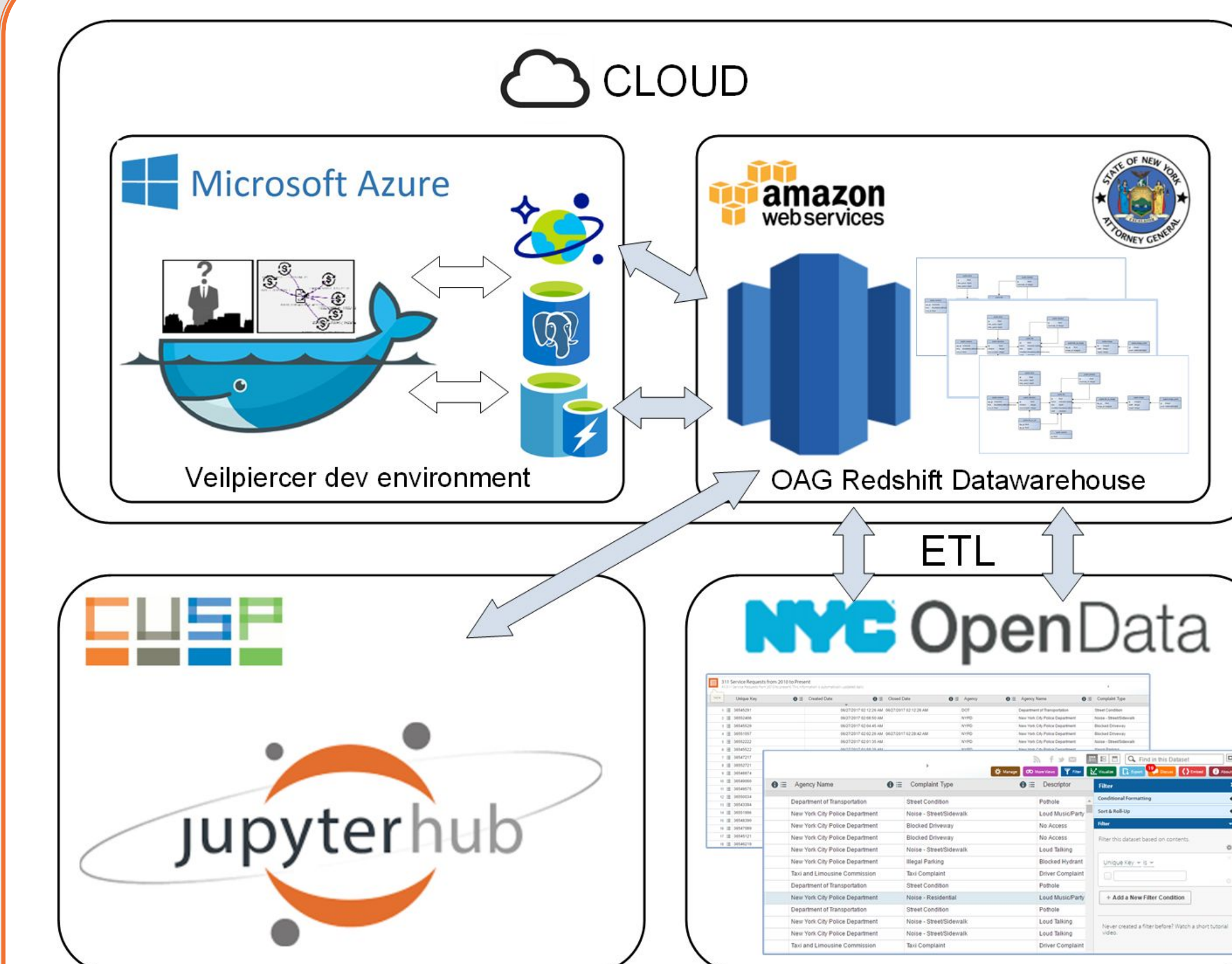
Data Exploration Tool

This product represents the project's main objective: A tool that assists the OAG in building a complete ownership portfolio by:

1. Search: using query multiple terms, (Different Names, and Addresses)
2. Refine: select one or more corporate addresses associated with an owner's portfolio
3. Explore: review properties that have an association with the refinement address locations

The portfolio is displayed with both summary and detailed information about buildings, violations, complains, financial transactions, etc. Information is presented using interactive visualizations that enables filtering, searching and exporting.

Technology Landscape

- The project was build entirely using open source technologies, including Docker, Python, Django, D3.js, Tinkerpop, etc.
- The CUSP Jupyter hub was used to collaborate and rapidly prototype the data queries, transformations and visualizations.
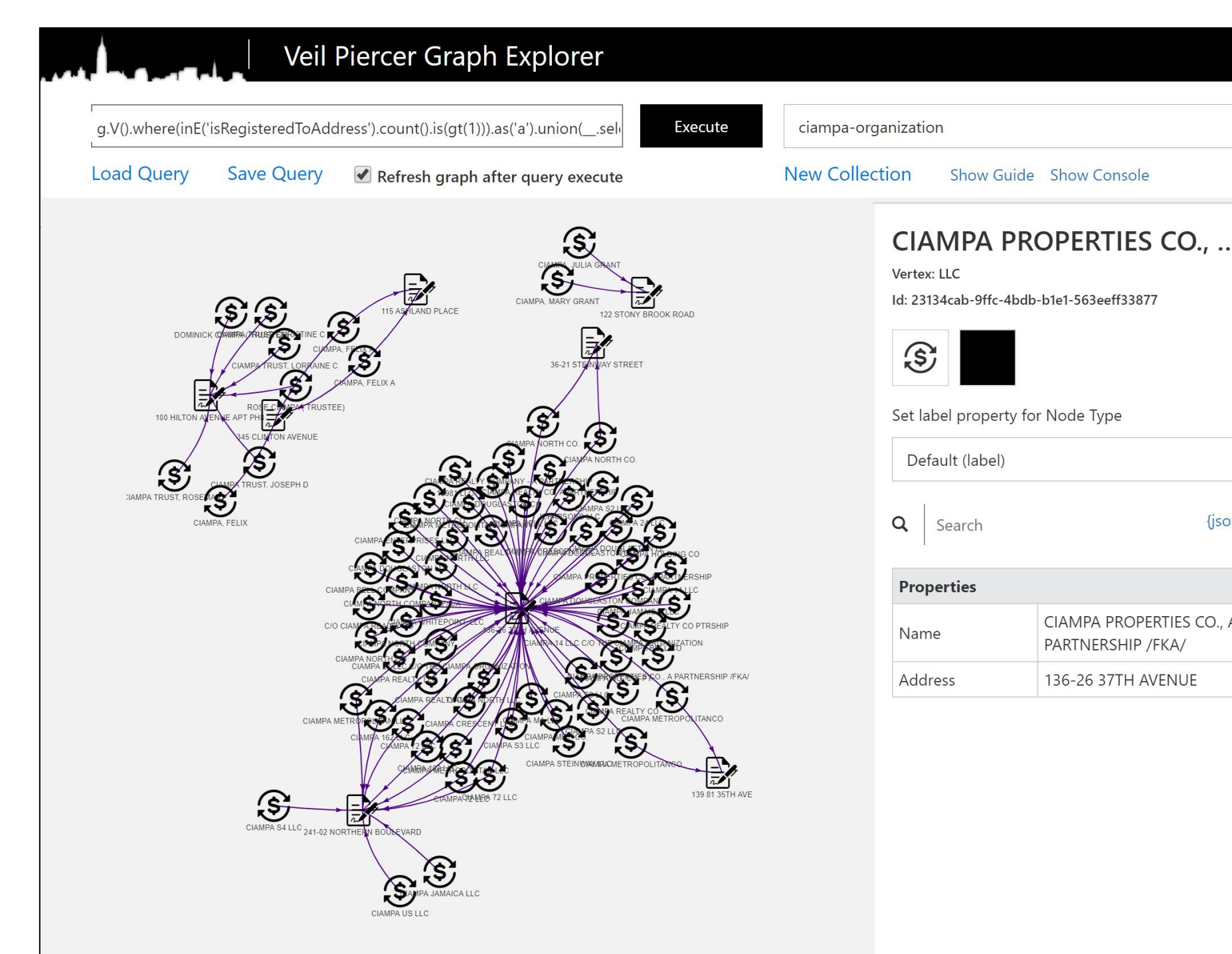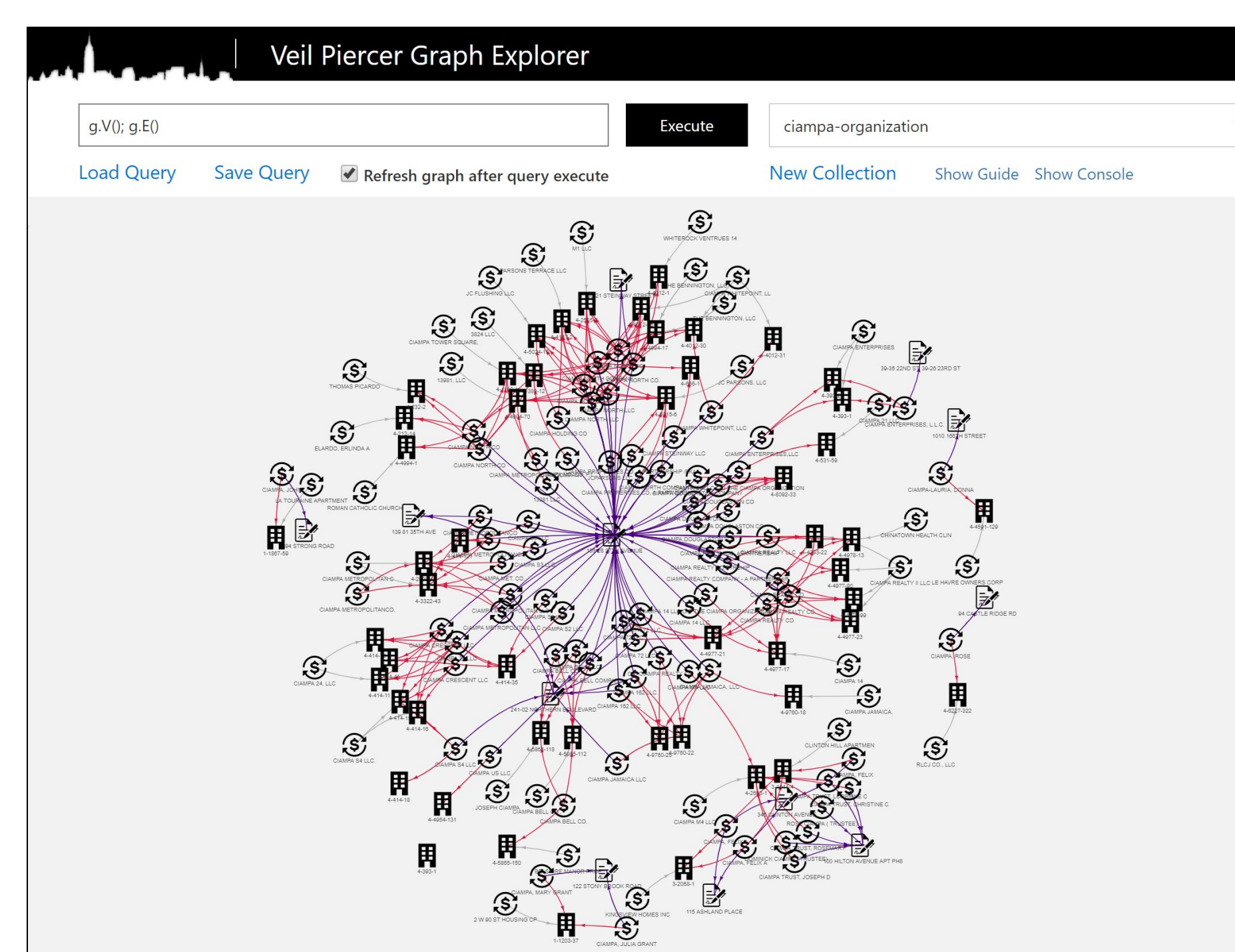
Problem Statement

The issue:

- Identifying a complete owner's property portfolio is difficult.
- Limited Liability Companies (LLCs) allow landlords to shield their identity and reduce their financial risk, and along with that, the visibility of their entire portfolio.
- The tenant harassment could happen to rent-stabilized tenants. If the tenant is removed, the landlord can increase their profitability.

Proposed Solution:

- Use NYC's open data to develop a data exploration tool that helps pierce the corporate veil and supports the work the OAG does to combat harmful landlord practices throughout New York City.

Graph Modeling

- Visualizing and exploring the refined data in the form of a graph helps better understanding the importance of the relationships between the problem domain entities.
- This approach helps further remove the opacity that the LLCs bring to the properties' portfolio by shedding light on its complete structure.
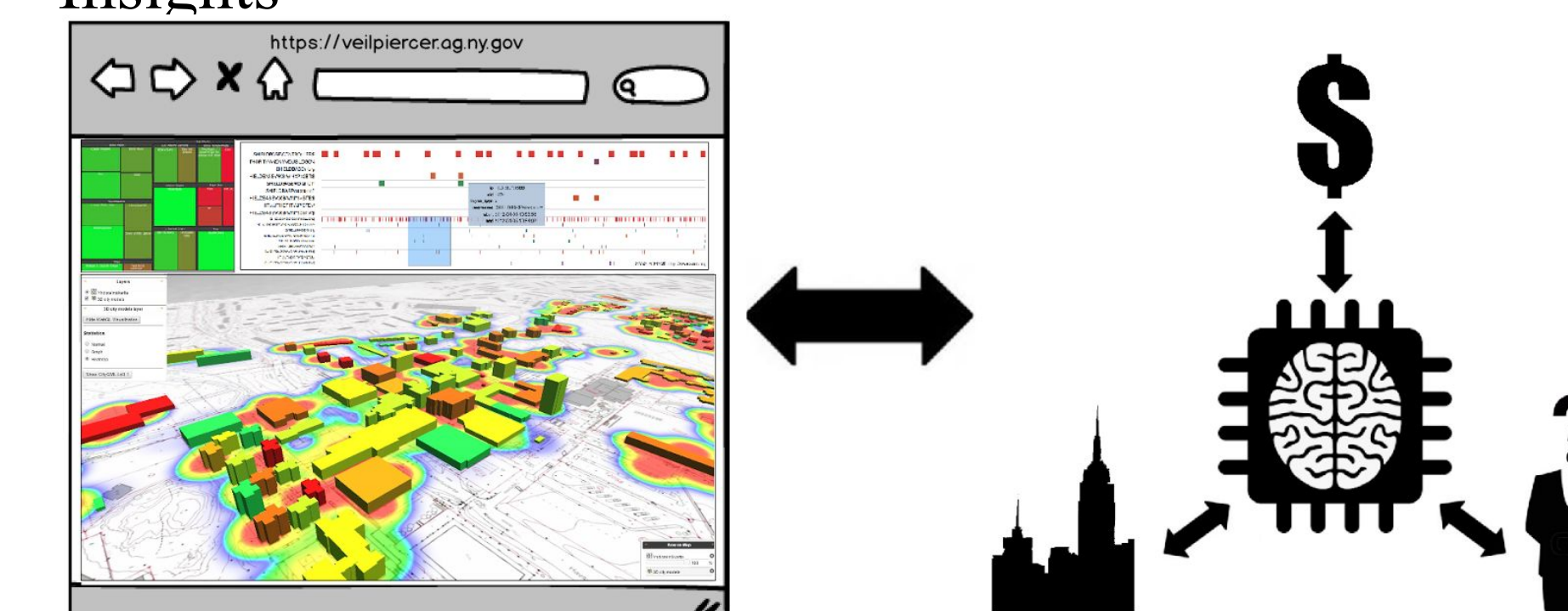

- The graph exploration tool is based on an open standard graph computing framework that enables executing complex queries over the entire portfolio.
- Through this queries the OAG can focus on specific entities and relationships, such as addresses that have more than one LLC registered to them.

Future Work

Planned enhancements to further improve the tool usefulness:

- EPIC IV: Advanced Analytics and Machine Learning Insights

- EPIC V: Integration with the th the OAG Case Management