

# Facilitating Visual Analytics with ChatGPT

## 2023 VAST Challenge Award - Application of LLMs to Support VA Process

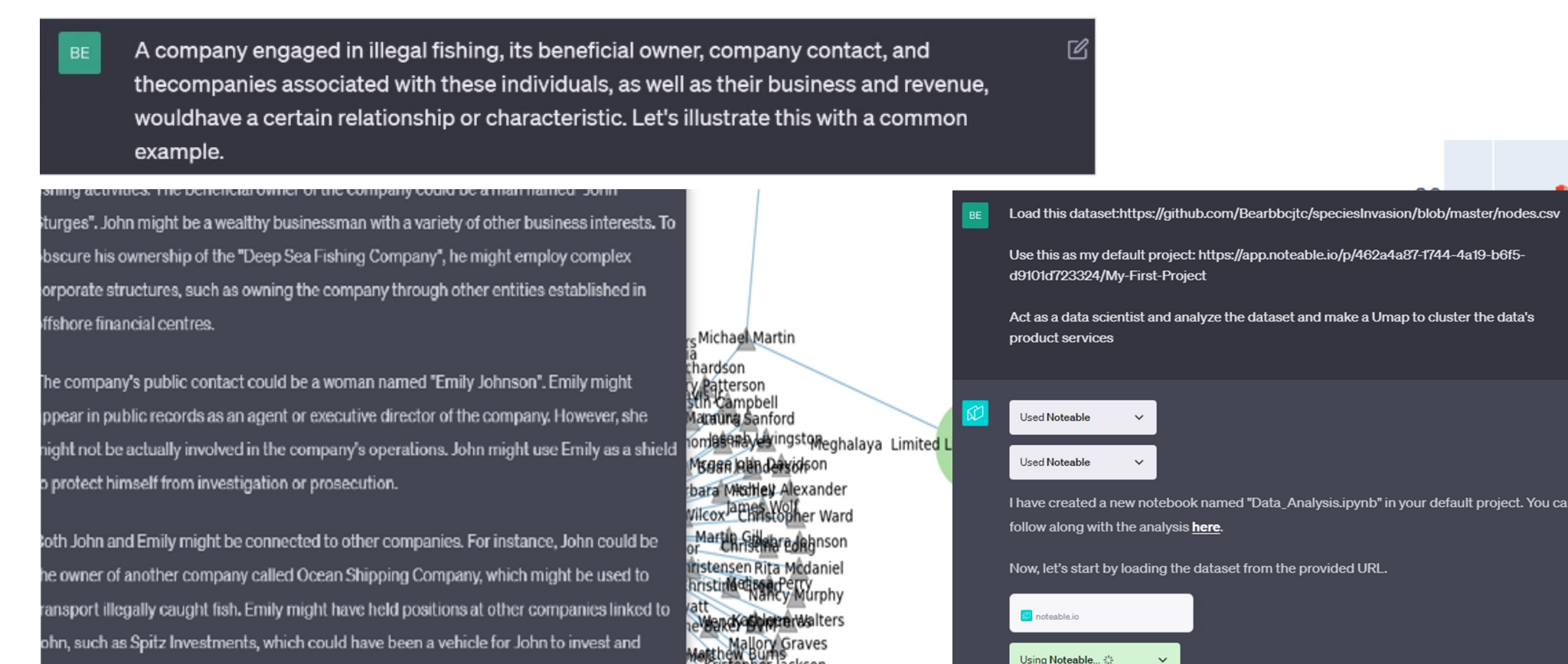
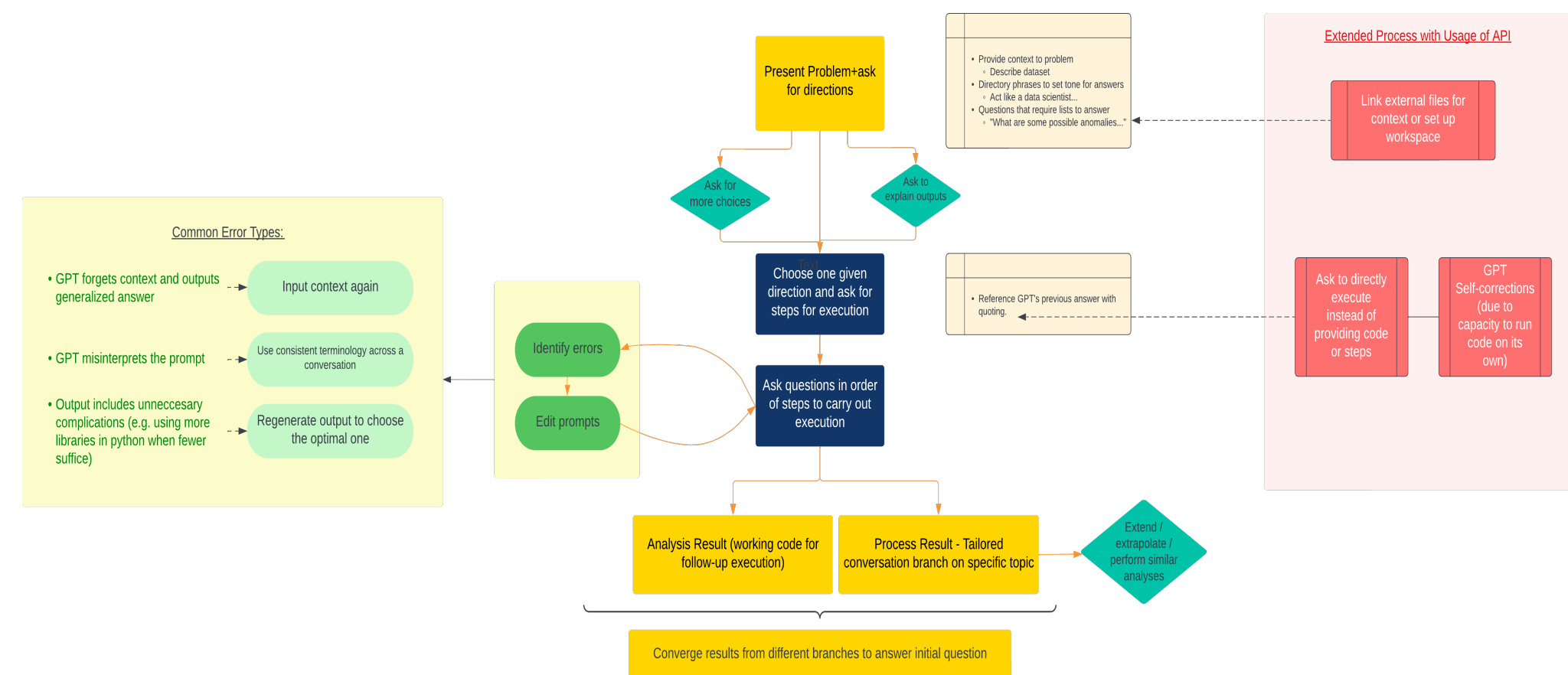


### INTRODUCTION

To tackle the VAST Challenge 2023 MC3, our team harnessed the capabilities of ChatGPT for AI-guided visual analytics in detecting anomalies within a knowledge graph centered on illegal fishing and marine trade.

We employed a systematic and iterative approach, guided by GPT augmentation, that enabled problem understanding, data processing, solution exploration, code writing, and results analysis.

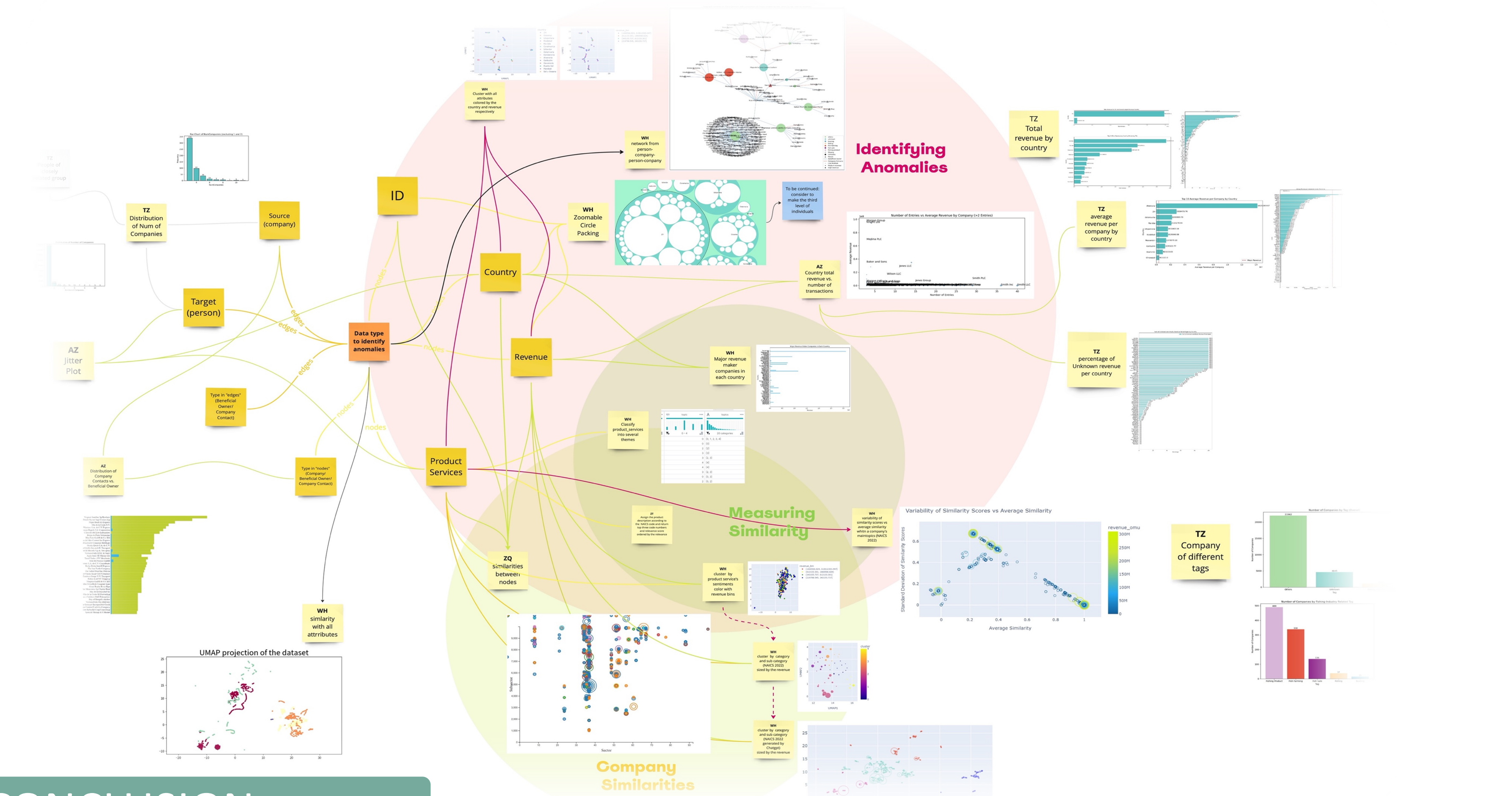
Through the generation and examination of multiple graphs, anomalies tied to revenue and product services emerged, pinpointing potential illegal fishing activities and highlighting areas for further investigation. Despite its prowess, ChatGPT's role underlined the integral necessity of human oversight to fine-tune AI outputs. Plugins like Noteable and Code Interpreter further amplified our interactions with ChatGPT, streamlining visualization and enhancing the overall experience.



### VISUALIZATION & INTERACTION

#### NETWORK ANALYSIS

- **Network Generation:** Using ChatGPT's Code Interpreter, we crafted company-person-company networks.
- **Example Structures:** we asked ChatGPT to showcase possible suspicious network structures.
- **Template Adaptation:** interpret user-generated network diagrams to uncover potential illicit fishing activities



### CONCLUSION

ChatGPT provided invaluable guidance in solving the challenge, revealing both its strengths and limitations, especially in data processing and scalability. While it excelled in analyzing natural language data, occasional inconsistencies required manual intervention. Our experience underscores the synergy between AI advancements and human judgment for an effective human-AI collaboration.

