

Student Name: ZHENG Shusen

Student ID: 22103691D

Group Name: 404 Not Found

### **1. What is your primary role in doing this project?**

My primary role in this project was to design and implement the Logistic Regression model, including six different versions and further semantic analysis based on the processed data. Specifically, I was responsible for the content mentioned in the report from pages 2 to 12, excluding the "Other Models" section. Additionally, I created the project video and compiled the report content for pages 1 to 12, again excluding the "Other Models" portion.

---

### **2. What other ideas have you considered to formulate the problem? Have your team members accepted or rejected them?**

The core idea of this project—focusing on clustering and semantic analysis—originated from me. Initially, my teammates rejected this approach, believing semantic analysis on news headlines was unnecessary. However, they quickly changed their minds after I demonstrated the fruitful results and impact this analysis could have on the project.

---

### **3. What were the main difficulties encountered by the whole team? And by you individually?**

The main challenge was self-learning. While the lectures provided conceptual knowledge, completing this project required us to learn various coding techniques and apply different models independently. Without professional guidance, I had to rely heavily on online resources. Although this process was initially daunting, it ultimately proved to be a valuable experience. It helped me gain familiarity with major machine-learning platforms and develop a solid understanding of model implementation. This semester-long journey taught me that self-discovery and self-learning, often challenging and frustrating, can be immensely rewarding and meaningful. I love it!

From the team's perspective, version control was a significant challenge, especially with three members working on programming in parallel. To address this, we divided responsibilities among team members and utilized Git repositories to manage version control efficiently.

---

### **4. What have you learned from this project?**

In addition to the above points, I appreciate machine learning as a blend of art and science, one of my favorite subjects in PolyU. Its "black box" nature makes it challenging to comprehend fully, but at the same time, it is incredibly powerful and captivating in solving complex problems. I am proud to see that the 2024 Nobel Prize was awarded to two AI scientists, highlighting AI's transformative power. This project has broadened my horizons and deepened my interest in AI. It has inspired me to continue exploring and learning more about the potential of artificial intelligence. Thank you for this incredible opportunity.