Graduate Certificate in Artificial Intelligence with Machine Learning
AIGC 5503 – AI For Bus. Decision Making

Lab 2 & 3: Case Study – Human Resources

Submission guidelines:

- For this lab, you will need to submit 1 PDF file.
- Name the PDF as follows: firstname_lastname_LAB2_3.pdf
- Go to the course Blackboard → Labs folder → Lab Exercise 2 & 3 and submit the pdf.

Lab goals:

- Analyze real-world case study .
- Implement K-means clustering on a real-world case study.
- Perform dimensionality reduction (Autoencoder and PCA).

Part 1: Module Activity Participation

- Complete the activities within **Module 2** – (Lab 2)
  - o Activity 1: Engaging with Discussion Questions
- Complete the activities within **Module 3** – (Lab 3)
  - o Activity 2: Self-Research

Part 2: Case Study

- Analyze the Human_Resource.csv dataset by:

  - o Apply K-Means Clustering

  - o Apply PCA

  - o Apply Autoencoder

- Complete the tasks and steps provided in Labs2-3CaseStudy.ipynb

Evaluation & Deliverables:

- **Part 1 = 20%**
- **Part 2 = 80%**
- **Deliverables:** Provide a copy of **your code** and the generated **outputs** from Part 2 in your pdf file.

Enjoy!