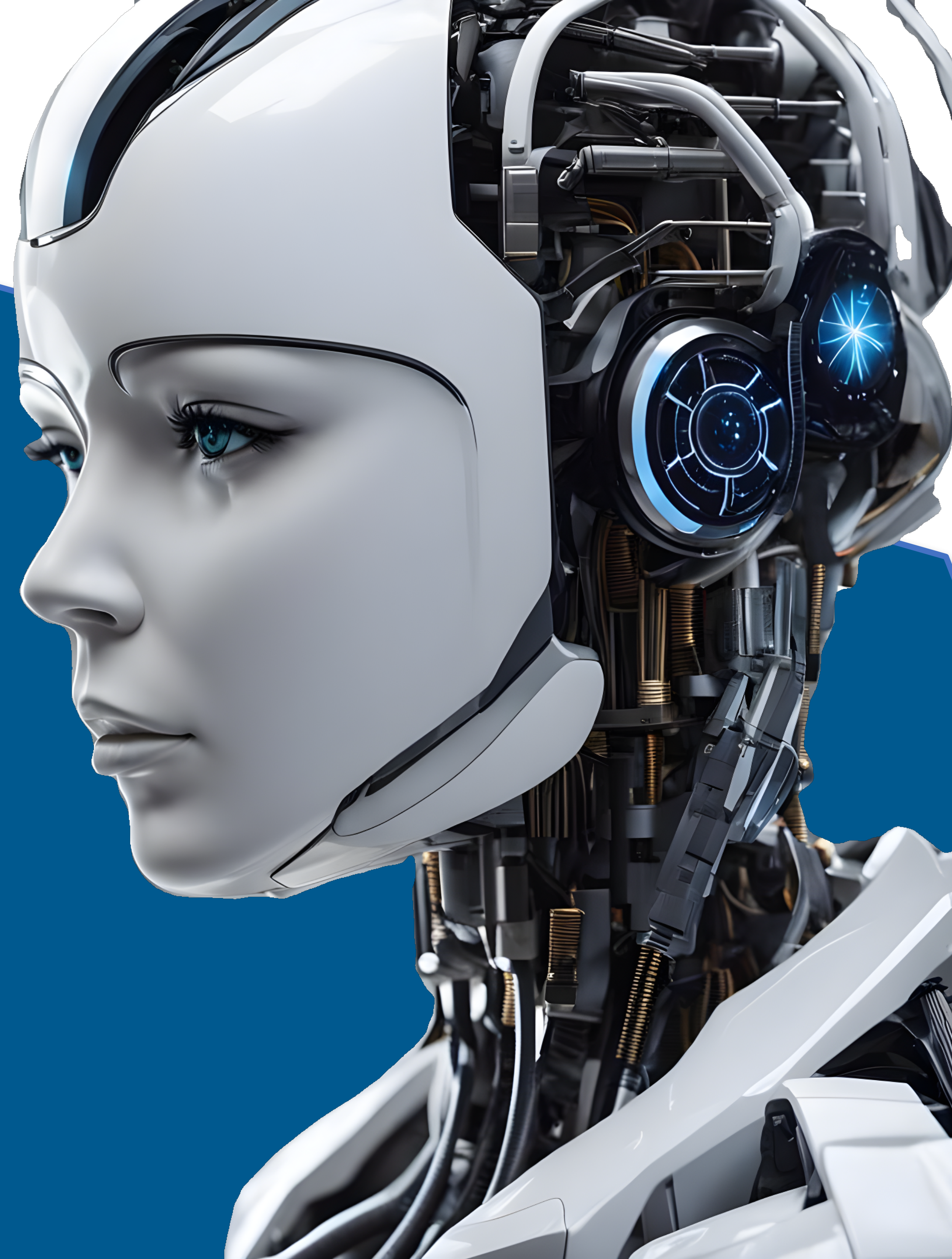




Tishk International University  
IT Department  
Course Code: IT-344/A



# Introduction to Machine Learning

## Introduction to the Course

### Lecture 1

Spring 2024

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## Hemin Ibrahim

- BSc in Mathematics
- BSc in Information Technology
- MSc(Eng) in Advanced Software Engineering
- PhD in Artificial Intelligence



## Hemin Ibrahim

- [hemin.ibrahim@tiu.edu.iq](mailto:hemin.ibrahim@tiu.edu.iq)
- (WhatsApp)
- Sending text messages **ONLY**.
- Phone calls are **NOT** an option.
- Voice messages are **NOT** permitted.
- Office: 252





**The following actions are NOT allowed.**

- Answering call
- Sending messages
- Watching Youtube
- Taking a photo (only with permission)

**Your Cellphone should be silent**



# Course policy - Attendance



★ I have a big problem with attendance

☆ Ahmmm

★ I will fail if I don't have 70%

☆ Ahmmm

★ I have conflict with other courses

☆ Ahmmm

★ Can you please help me?

☆ **NO**



**There will be no attendance record if you are unavailable**



# Course policy - Class time



**Don't be Late**

**Be on time for the lecture**

**Remember, if class starts at 11:00AM, 11:06, means you are late**

**AND**

**11:10 You Consider as absent**





# Course policy - Lecture



- **Raise your hand if you need to step out of the class.**
- **Ensure that you arrive on time for the second part of the lecture**



# Group Assignments



**Assignments are to be done in groups**

**Groups must be composed of a max of 5 people**

**No groups of  $> 5$  are allowed for any reason**

**No groups of  $< 4$  are allowed for any reason**



# Assessments - Group



Join Google Classroom (Proper Name)

oj2mqa3

Form your group

| # | Group Name | Leader | member#1 | member#2 | member#3 | member#4 |
|---|------------|--------|----------|----------|----------|----------|
| 1 |            |        |          |          |          |          |
| 2 |            |        |          |          |          |          |
| 3 |            |        |          |          |          |          |
| 4 |            |        |          |          |          |          |
| 5 |            |        |          |          |          |          |
| 6 |            |        |          |          |          |          |
| 7 |            |        |          |          |          |          |



# Assessments - Group



**Q1: Can we do the project in a group of six (6)?**

**Answer: No.**

**Q2: Can we do the project in a group of  $> 5$ ?**

**Answer: No.**

**Q3: Can we do the project in a group of two (2)?**

**Answer: No.**

**Q4: Can we do the project in a group of  $< 4$ ?**

**Answer: No.**

**Q5: can I do the project on my own?**

**Answer: No.**

**Q6: but..?**

**Answer: No.**

**Q7: can we have an extension?**

**Answer: No.**

**Q8: but my cat was ill?**

**Answer: ohhh poor cat.**

**BUT**

**Each group can have only one postpone**



# Assessments - Group



## Group's serious problems during this course:

**Person #1:** My partner did not contribute at all  
Was never present when we decided to meet  
He is always silent.

**Person #2:** I was busy,  
my grandpa was ill,  
I had a dentist appointment...,  
They work very fast, and talk a lot and never let me to understand...

**Do you know where the problem is?**

# Assessments - Group



## Group's serious problems during this course project:

**4 members say:** Our partner did not contribute at all

He is always silent and sometimes he does not even come to the meetings

**The other member:** My partners work very fast, talk a lot among themselves and never let me understand what they do. They are probably better than I am

**Can you tell me where the problem is?**



# Assessments - Group



Select your partner(s) with care

- Ask them about their marks

- Choose someone with marks similar to yours

- Do not try to be with better people to try to scrape better marks

- It does not work!

- Do not choose someone just because you fancy them

- Find a friend another way

- Be very careful when you work in a group

- Talk to your partner frankly and honestly

# How to pass?!

## 1. Come to the lectures

- If you do not understand, tell me
- Feel free to ask questions at any time
- Apply lecture concepts on your tasks
- Do NOT ask friends to do your tasks

## 2. Complete tasks on time



## Assessments\*

| Assessments | Theory | Practical (presentation) |
|-------------|--------|--------------------------|
| Task#1      | -      | 4%                       |
| Quiz        | -      | 5%                       |
| Task#2      | -      | 5%                       |
| Task#3      | -      | 7%                       |
| Midterm     | 10%    | 10%                      |
| Task#4      | -      | 6%                       |
| Task#5      | -      | 6%                       |
| Task#6      | -      | 7%                       |
| Final       | 20%    | 20%                      |

\*It may change based on the requirements

# Assessments - Deadlines



**Please note our submission policy for tasks:**

1-day delay penalty: -5%

2-days delay penalty: -25%

3-days delay penalty: -75%

4-days delay penalty: -100%



# Assessments - Task#1



| Assessments | Deadline   | Points |
|-------------|------------|--------|
| Task#1.1    | 09-02-2024 | 1%     |
| Task #1.2   | 13-02-2024 | 3%     |

## Task #1.1

1.Groups

2.Create Github account

1.Create a Private repository by your group name.

2.Add me as a collaborator (hemn@c4kurd.com)

## Task #1.2

3.Explain the following topics (Presentation)

**1- AI, 2- Machine learning, 3- Deep Learning**

# Why Machine Learning course?



- **Problem-Solving Skills:** Machine learning involves solving complex problems, and analyzing data.
- **Preparation for Future Technologies:** AI and automation continue reshape industries and societies, understanding machine learning concepts becomes increasingly important for future professionals.
- **Relevance to Modern Industries:** Machine learning is becoming increasingly integral to healthcare, finance, education, army and many others. Understanding machine learning prepares you with skills in the job market.
- **Decision Making:** businesses and organizations rely on data analysis to make informed decisions. Machine learning provides tools and techniques for extracting meaningful insights from large datasets.

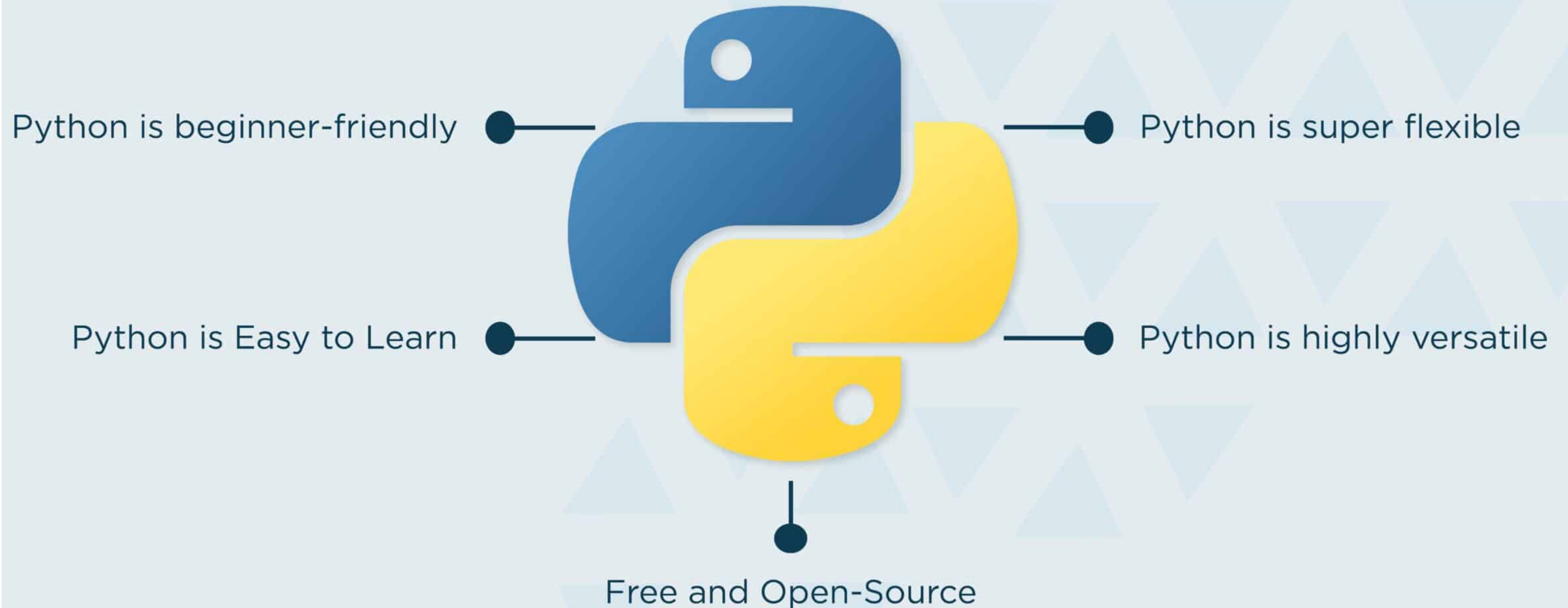
# Why Machine Learning course? (Cont.)



- **Innovation and Research Opportunities.**
- **Interdisciplinary Applications:** Machine learning intersects with various disciplines such as computer science, statistics, mathematics, and engineering.



# Programming Language



# Programming Language



**Python  
developer  
learning C++**



**C++  
Developer  
learning  
Python**



## PyCharm

The Python IDE for  
Professional Developers

JET  
BRAINS



PC



# Why Python?



- **Ease of Learning and Readability**
- **Rich Ecosystem of Libraries**
- **Support and Documentation**
- **Flexibility**
- **Industry Adoption and Job Opportunities:**

# Simple Example

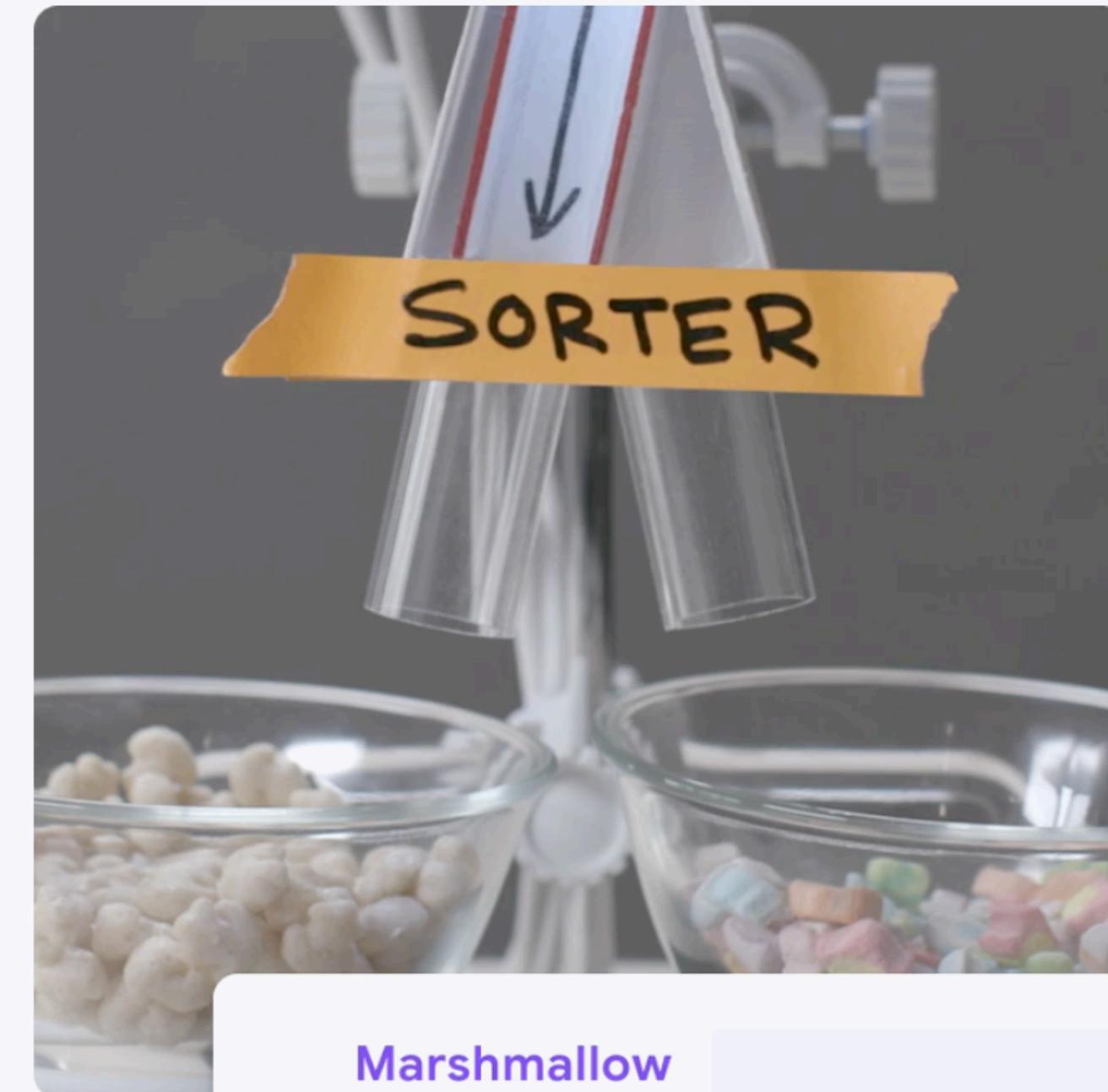


## Teachable Machine

**Train a computer to recognize your own images, sounds, & poses.**

A fast, easy way to create machine learning models for your sites, apps, and more – no expertise or coding required.

Get Started



<https://teachablemachine.withgoogle.com/>

Thank You

