

**PROFESSIONAL CERTIFICATE
IN MACHINE LEARNING AND
ARTIFICIAL INTELLIGENCE**

**Office Hour #1 with
Matilde D'Amelio**

March 10, 2022 at 10 pm UTC

WHO I AM

**Head of MSC Management with Data
Analytics and Digital Marketing &
Professional Development Expert**



INDIAN INSTITUTE OF
MANAGEMENT LUCKNOW

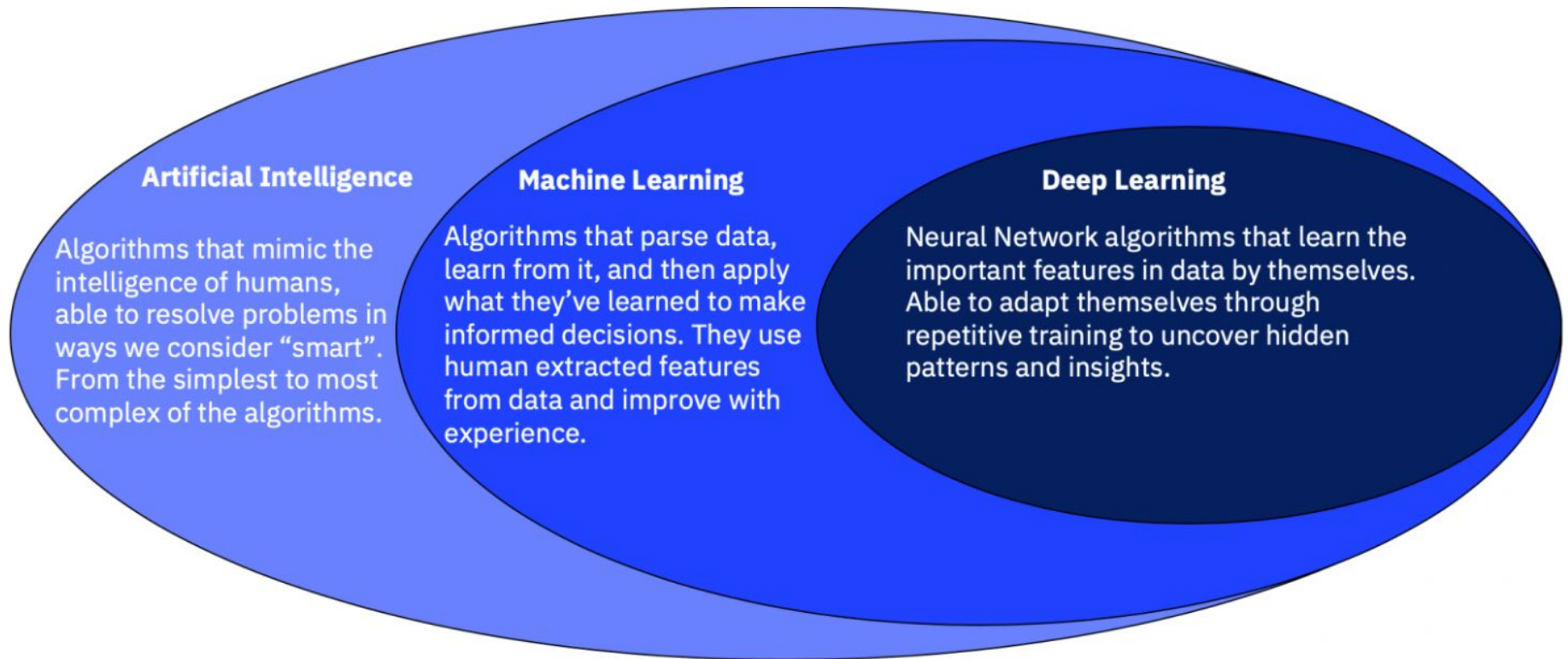


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MILANO 1863

WHO YOU ARE

NOW,
IT'S
YOUR
TURN

WHAT IS ARTIFICIAL INTELLIGENCE



Source: IBM (<https://medium.com/@UdacityINDIA/difference-between-machine-learning-deep-learning-and-artificial-intelligence-e9073d43a4c3>)

GROUP DISCUSSION

Once in your group:

- Introduce yourself
- Discuss about possible applications of **Machine Learning** and **Deep Learning**
- Present the key discussion points back to the the class

Time: 10 minutes



ARTIFICIAL INTELLIGENCE APPLICATIONS

MACHINE LEARNING

- Product Recommendation
- Image Recognition
- Sentiment Analysis
- Employees Recruitment, Productivity, Retention and Development
- Wildlife Preservation
- Healthcare Efficiency
- Fraud Prevention
- Cybersecurity
- ...

DEEP LEARNING

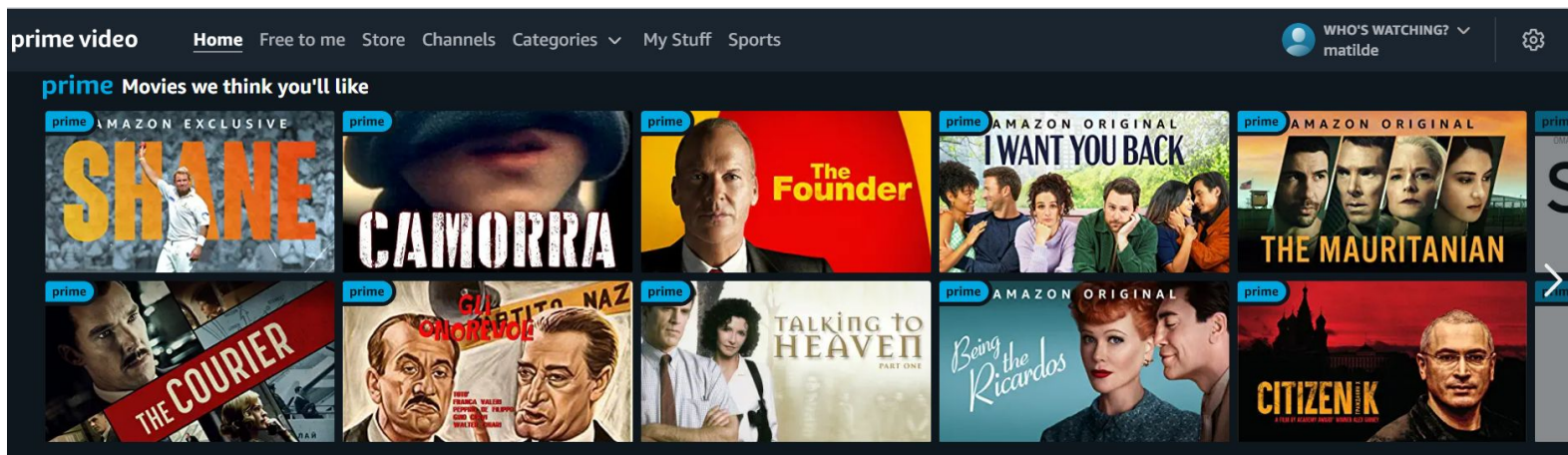
- Virtual Assistant
- Chatbots
- Netflix, Youtube, Amazon ... (recommendation)
- Fake News
- Composing Music
- Image Coloring
- Advertising
- Robotic (self-driving cars)
- ...

MACHINE LEARNING APPLICATIONS



Arab Spring

Movies Amazon thinks I like



DEEP LEARNING for CREATING MUSIC



Source: <https://www.youtube.com/watch?v=wYb3Wimn01s&t=143s> (minutes 0:40 - 3.35)

DEEP LEARNING for CREATING FAKE NEWS



Source: <https://www.youtube.com/watch?v=AmUC4m6w1wo>

USEFUL ADDITIONAL RESOURCES



Useful Learning Resources

Savio Saldanha
All Sections

Mar 9 at 7:05pm

Dear Participants,

Here are some additional popular resources which might be useful, especially as a refresher to stats and programming in Python.

Note that you don't need to study the whole of these resources. Pick and choose topics within them based on the course content and areas you'd like to refresh.

Running Python Code in Your Browser, using Google's Compute for FREE

- [Google Colab](#) (requires an internet connection, but very useful if you're programming on a PC / laptop with a weak configuration).
You'll see a popup asking you to create a new notebook as soon as you land on this page; click Cancel, and read the Getting Started guide on the page to know more.

Statistics

- <https://onlinestatbook.com/2/index.html>
- [Khan Academy](#)
- [Introduction to Probability for Data Science](#)
- <https://www.youtube.com/c/joshstarmer> (Love his trademark BAAM! :D)

Machine Learning

- [An Introduction to Statistical Learning](#) (in R)
- [Python Data Science Handbook](#)

Data Visualization in Python using the Matplotlib or Seaborn packages (note there are several other visualization packages available)

- [Matplotlib in 6 minutes](#)
- [Matplotlib in one video](#)
- [Seaborn in one video](#)

Pandas

- [Pandas for Data Science in 20 Minutes](#)
- [Pandas Exercises](#) : After watching the above video, practice these pandas quizzes

Practice the Data science concepts together

- [Data Analysis with Python](#)

QUESTIONS?

