Course 3: Apply AI in Business in 60 Minutes

Courses

AI Journey - Beginner to Expert

- Course 1: AI for Everyone in 60 Minutes
- Course 2: AI Coding for Fintech in 60 Minutes
- Course 3: Apply AI in Business in 60 Minutes
- Course 4: Machine Learning Algorithms in 60 Minutes
- Course 5: Deep Learning Algorithms in 60 Minutes

Objective

Journey

AI Aware —>AI Management

What is AI

- Introduction
- Machine Learning
- What is data
- The terminology of AI
- What makes an AI company?
- What Machine Learning can and cannot do
- Intuitive explanation of deep learning

Building AI Projects

- Workflow of a Machine Learning project
- Workflow of a Data Science project
- Every job function needs to learn to use data
- How to choose an AI project
- Working with an AI team
- Technical tools for AI teams

AI in Your Company

- Case study: Smart speaker
- Case study: Self-driving car
- Example roles of an AI team
- AI Transformation Playbook
- AI pitfalls to avoid
- Taking your first step in AI
- Survey of major AI applications
- Survey of major AI techniques

AI and Society

- A realistic view of AI
- Discrimination / Bias
- Adversarial attacks
- Adverse uses
- AI and developing nations
- AI and jobs
- Conclusion

ANI

Artificial Narrow Intelligence (ANI): ANI systems, also known as Weak AI, are the type of AI that are developed for the purpose of performing a specific task and can only be specialized within a narrow functional area. While such computers or systems can be programmed to make several hundred thousand calculations per second, they are limited in their performance capabilities by the parameters that are pre-defined by their developers (Gurkaynak, Yilmaz and Haksever, 2016).

AGI

Artificial General Intelligence (AGI): AGI systems, also referred to as Human-Level AI (Goertzel, 2007), represent the type of AI systems that can mimic humans at every level and can, in theory, perform all kinds of tasks that humans can. The theory of these types of "thinking machines" was first posited by Alan Turing (1950) who developed the Turing Test to experiment the possibility of Human-Level AI (McCarthy, 2007). The test is formed by arranging a conversational text exchange between: - A human tester - Other humans - AI system being tested

ASI

Artificial Super Intelligence (ASI): ASI systems are predicted to be the type of AGI systems that will evolve exponentially to overtake humans in practically every field including science, cognitive thinking and social skills. They also represent the type of AI that will, according to some theorists, “take over” humankind and lead to a phenomena which is infamously known as singularity.

Fundamentals of Project Management

The basics principles of project management revolve around the infamous constraints, also referred to as the Iron Triangle, as illustrated in the figure below:

Project Management Process

- Project Initiation: This is the stage in which the benefits of conducting a project are recognized and the project is sanctioned
- Project Planning: This is the stage in which the basic parameters, such as those explained in the Iron Triangle, of the project are defined, activities are scheduled and risks are evaluated. The project team is also allocated here.
- Project Execution: The team begins the project work in this stage and the project manager directs and manages the work
- Project Monitoring and Control: The progress of the project is tracked and evaluated from the start of the project in this stage. Adjustments are made where needed if it seems like the pre-defined objectives can not be met as planned
- Project Closure: This is the last stage of the project management process in which all the activities of the project are finalized, the contract is settled and the finances of the charged numbers are closed

Research Strategy

- Quantitative: This is the type of research which implies quantification in the collection and analysis of data and usually employs a deductive method of reasoning which has the following process flow : Theory –>Hypothesis –>Data Collection ->Findings –>Hypothesis Confirmed or Rejected –>Revision of Theory
- Qualitative: This research strategy involves more focus on words rather than on quantification and employs an inductive method of reasoning which is basically the opposite of deductive reasoning. The outcome of a deductive reasoning process usually leads to the formation of a new theory.

SWOT Analysis

SWOT Analysis	Helpful towards achieving a goal	Risks towards achieving a goal
Internal Perspective Factors of the organization or individual	**Strengths** Activities that are working well currently; should be maintained and used as leverage	**Weaknesses** Activities that are not working well, and should be either improved upon or stopped
External Perspective Factors of the environment in which the organization or individual operates	**Opportunities** Activities that are good for the future; should be prioritized and built upon	**Threats** Activities that are bad for the future, and need a strategy to be managed or countered

Q & A

Thank You!

Appendix

- AI for Everyone (Andrew Ng)
  https://www.coursera.org/learn/ai-for-everyone
- AI in 5 Minutes (Video)
  https://youtu.be/2ePf9rue1Ao

List of Abbreviations

AI Artificial Intelligence
ANI Artificial Narrow Intelligence
AGI Artificial General Intelligence
ASI Artificial Super Intelligence
MIT Massachusetts Institute of Technology
PM Project Manager
PwC PricewaterhouseCoopers
SME Small and Medium Enterprise
SWOT Strengths, Weaknesses, Opportunities and Threats