

AI FOR BUSINESS

**2 days interactive course to understand and leverage AI for
enterprise use cases**

Version 1.0

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AUDIENCE

This course is designed for CXO's, VPs, Senior Management, Middle Management, Project Managers, Business Analysts, Technical Architects and Developers who are interested in understanding AI technology, its impact on the enterprise, learn to identify use cases that benefit from AI, and learn the techniques, tools and processes for planning and implementing AI based projects from scratch.

TEACHING METHODOLOGY

This workshop is conducted using presentations, discussions, videos, demos and hands-on labs. It is highly recommended that each participant carry a laptop with Wifi dongle (or phone hotspot) to make the best use of demos and labs in the workshop.

DURATION

2 days, 9AM to 6PM

PARTICIPANTS EQUIPMENT AND SOFTWARE

1. Laptop with Windows 7, 8, 10 / MacOS / Linux
2. Internet Connectivity
3. Chrome / Firefox Browser
4. Microsoft Excel
5. AWS Account (<https://aws.amazon.com/>)
6. Azure Account (<https://azure.microsoft.com/en-us/>)

Note: Additional software requirements (if any) will be shared with the participants after registering for a workshop.

CERTIFICATES

Participation certificates are issued to all the participants immediately after the course.

COURSE OVERVIEW

AI is impacting, transforming or even eliminating many functions in organizations. In some cases, the impact is evolutionary, while in other cases, it is causing major disruption and transformation in how we think, plan and execute. Understanding AI technology is absolutely crucial for organization leaders to stay ahead. The impact of AI is not just on business functions, but also on the types of skills and experience required for many job roles. If you are a decision maker or a manager, this course is specifically designed to help you understand the fundamentals of AI and leveraging it for optimizing processes, reducing costs and delivering faster results.

Upon completing the workshop, you will have a solid hands-on experience with using the latest AI tools, frameworks, techniques and best practices. You will also be able to design a plan to implement AI as a proof of concept in specific business functions.

BUSINESS OUTCOMES

BO1	Decide on use cases that make sense for AI
BO2	Plan and implement a good data sourcing strategy
BO3	Design a process to import, clean and transform data for AI applications
BO4	Decide and use the right types of machine learning algorithms for different use cases
BO5	Build easy to understand visualizations to explain the results of AI based solutions to different stakeholders

BO6	Leverage cloud platforms to quickly prototype AI solutions
BO7	Leverage ready solutions and frameworks to deliver quick ROI on AI initiatives
BO8	Build a strategy to reduce costs and deliver better TCO when implementing AI solutions
BO9	Project Management: Build a plan to properly manage and control an AI project
BO10	Project Management: Perform basic cost benefit analysis when deciding to use AI and get buy in from different stakeholders
BO11	Apply best practices in implementing AI
BO12	Hire the right skills to execute an AI project

LEARNING OBJECTIVES

Learning objectives (LOs) are brief statements that describe what you are expected to know after each chapter/section. The LOs are defined as follows:

- K1: Remember
- K2: Understand
- K3: Apply

The LOs for this course are:

LO1	Understand and explain the impact of AI on various functions in an organization (K2)
LO2	Understand the various ethics and governance related issues when using AI (K2)
LO3	Explain the different types of AI (K2)
LO4	Explain the different types of Machine Learning and AI algorithms (K2)

LO5	Supervised machine learning projects (K3)
LO6	Unsupervised machine learning projects (K3)
LO7	Decide when to use AI and the type of AI for different use cases (K3)
LO8	Research and identify good data sources for machine learning (K3)
LO9	Import data for machine learning (K3)
LO10	Clean imported data to ensure it is a good source for machine learning (K3)
LO11	Transform data to ensure that it is optimized for Machine Learning algorithms (K3)
LO12	Create visualization to present machine learning results (K3)
LO13	Understand the use of AI systems across different functions in an organization (K1)
LO14	Explain and demonstrate the use of AI across different functions in an organization (K1/K2/K3)
LO15	Understand the popular AI development frameworks available and their application for different use cases (K2)
LO16	Build AI projects on AWS cloud (K3)
LO17	Build AI projects on Azure cloud (K3)
LO18	Understand the ways in which you can scale an AI based system (K2)
LO19	Perform cost benefit analysis for an AI project (K3)
LO20	Identify use cases in your organization for applying AI (K3)
LO21	Understand the key skills required to plan and execute an AI project (K2)
LO22	Understand the challenges of managing an AI project (K2)

CHAPTER 1 - THE HUMAN SIDE OF AI

LO1	Understand and explain the impact of AI on various functions in an organization (K2)
LO2	Understand the various ethics and governance related issues when using AI (K2)

- What is AI?
- Why should we care about AI?
- Is AI going to replace my job?
- How is AI changing the world around us
- Ethics and Governance in AI

CHAPTER 2 - FUNDAMENTALS OF AI

LO3	Explain the different types of AI (K2)
LO4	Explain the different types of Machine Learning and AI algorithms (K2)
LO5	Supervised machine learning projects (K3)
LO6	Unsupervised machine learning projects (K3)

- AI concepts
- AI, Machine Learning, Deep Learning and Neural Networks
- Types of Machine Learning and Algorithms
- Supervised Machine Learning
- UnSupervised Machine Learning

- Hands On: Getting started with Machine Learning

CHAPTER 3 - DECISION MAKING

LO7	Decide when to use AI and the type of AI for different use cases (K3)
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- Do we need AI?
- Deciding the right type of AI to use

CHAPTER 4 - DATA: THE SINGLE SOURCE OF TRUTH

LO8	Research and identify good data sources for machine learning (K3)
LO9	Import data for machine learning (K3)
LO10	Clean imported data to ensure it is a good source for machine learning (K3)
LO11	Transform data to ensure that it is optimized for Machine Learning algorithms (K3)

- Importance of Data in AI
- How to Research for Good Data
- Identifying Relevant Data Sources that Deliver the Right Results
- Identifying good data sources
- Importing data
- Cleaning data
- Data transformation

CHAPTER 5 - DATA VISUALIZATION

LO12	Create visualization to present machine learning results (K3)
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- Making Sense of AI Results
- Leveraging Data Visualization Frameworks to Present Data in Meaningful Form

CHAPTER 6 - AI USE CASES, HANDS ON LABS AND DEMOS

LO13	Understand the use of AI systems across different functions in an organization (K1)
LO14	Explain and demonstrate the use of AI across different functions in an organization (K1/K2/K3)

- AI in Project Management - AI driven tools and the future
- AI in Sales
- AI in HR
- AI in Finance
- AI for Forecasting
- AI for Understanding Customer Behavior and A/B Testing
- AI for Customer Service
- AI for Customer Segmentation
- AI for Behavior Analysis
- AI for Document Management
- AI for Streamlining Supply Chain Operations
- AI for Budgeting

- Natural Language Processing
- Sentiment Analysis
- Computer Vision
- AI for Image Analysis
- AI for Analysing Patterns in Social Networks
- AI for Fraud Detection

CHAPTER 7 - TOOLS OF THE TRADE

LO15	Understand the popular AI development frameworks and their application for different use cases (K2)
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- Popular AI Development Frameworks

CHAPTER 8 - AI DEVELOPMENT AND DEPLOYMENT

LO16	Build AI projects on AWS cloud (K3)
LO17	Build AI projects on Azure cloud (K3)
LO18	Understand the ways in which you can scale an AI based system (K2)

- Leveraging AWS and Azure Cloud for AI Projects
- Scaling AI projects

CHAPTER 9 - AI ROI

LO19	Perform cost benefit analysis for an AI project (K3)
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- Use Cost Benefit Analysis to explain the ROI of an AI project

CHAPTER 10 - BUILDING AN AI PRACTICE

LO20	Identify use cases in your organization for applying AI (K3)
LO21	Understand the key skills required to plan and execute an AI project (K2)
LO22	Understand the challenges of managing an AI project (K2)

- Identifying relevant AI use cases in your organization
- Types of Jobs and Roles in AI
- AI Project Management: Challenges and Possible Solutions