



# Geometric Progression

We Bring AI to Reality.

## Understanding AI Course: A Detailed Introduction

In an era where terms like “Artificial Intelligence”, “Machine Learning”, “Deep Learning”, and “ChatGPT” dominate the entrepreneurial and policy-making landscape, it’s vital to distinguish between the hype and the real business potential of these technologies.

This course demystifies AI and its related fields. Guided by Mark, an expert known for his engaging teaching style and knack for witty analogies, you’ll delve into AI technologies, all explained in plain English and demonstrated with live interactive demos and walkthroughs of algorithms with a focus on business applications. You’ll learn not just the ‘what’ but the ‘how’ of AI in business, preparing you to lead your organization through AI transformation.



Your Day of AI Mastery Includes:

- **The AI Revolution in Business:** Explore the backstory of AI and the triggers of its recent surge in the business world.
- **Demystifying AI Jargon and Learning Models:** Unravel AI terminologies from ANI to AGI and understand the distinction between Artificial Intelligence, Machine Learning, and Deep Learning in a financial markets and business context. Get to grips with LLM’s, Agents and Hugging Face.
- **A Tour of Practical Machine Learning Algorithms, Neural Networks and Advanced AI Technologies:** Interactive demos and walkthroughs of algorithms with a focus on financial markets and business applications, the latest AI advancements and their implications.
- **Ethics and Risks in AI:** Navigate the ethical considerations and manage risks associated with AI in business.
- **AI in Business Strategy:** Learn how AI reshapes business models, customer experiences, and competitive landscapes.
- **Managing AI Transformation:** Practical steps and frameworks for implementing and managing AI transformation effectively in your organization.

**Additional Features:**

- Includes Lifetime access to comprehensive electronic course materials, including insightful videos and a curated list of resources for deeper exploration.
- Interactive Q&A sessions, providing personalized insights into your specific business challenges and opportunities in AI.



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Please refer to the detailed agenda below for more information.

<b>Level</b>	Introduction to Intermediate
<b>Duration</b>	1 Day in-house or 2 Days of 4 hours (including breaks) online.
<b>Suitable for</b>	<ul style="list-style-type: none"><li>• Everyone.</li></ul> A certificate is available on request
<b>Pre-requisites</b>	None

## **Tutor: Mark Raffaelli**

Mark is obtained his CFA Charter in 2000 and became fellow member of the Global Association of Risk Professionals (FRM) in 2001. Mark's extensive experience includes:

- Trading in Spot & Derivative Products professionally.
- Development of quantitative financial models for Surveillance, Performance Attribution, Price Validation, Price Models, Risk and Automation.
- Developments of Apps for the investment and insurance industry.
- Machine Learning and Deep Learning with Sklearn, Tensorflow & Pytorch in the Financial Markets for Banks, Asset Managers and general business.
- Time Series Analysis, Regime Change & Optimization with and without AI.
- Strategic implementation of AI and development of "Agentic" solutions.

Those who have attended Mark's courses will know about his passion and ability to cut through jargon, simplify technical issues and provide real life examples.



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## Detailed Agenda

### 1. The AI Revolution in Business:

- Definition of AI & a brief history of artificial intelligence.
- Key developments and triggers of AI's recent surge.
- Impact of AI on various industries.

### 2. Demystifying AI Jargon and Learning Models

Explanation of key AI terminologies and real-world examples illustrating each concept.:

- ANI, AGI, ASI, Machine learning versus Deep Learning.
- The true test of AGI and the public leaderboards.
- Traditional machine learning, Neural networks, LLM's, GAN's, Transformers, Reinforcement Learning.
- "Black Box" models versus "White Box" models & XAI.
- Understanding Chatbots such as ChatGPT, Gemini, Anthropic, Microsoft Copilot, Deep Seek and the Hugging face library of open-source models etc.
- The world of Agents incorporating context windows, parameters, tools, RAG, Langchain, QLoRA, all explained in plain English.
- Live interactive demos of Machine Learning algorithms and numerous Neural Networks, and connecting to a frontier and open-source model Chatbots etc.
- Case studies on business applications of these algorithms.
- Discussion on selecting the right algorithm for specific business problems.
- Overview of the latest advancements in AI technologies.

Mark will use many pictures, analogies and live demonstrations using python to explain the above in plain English.

### 3. Risks, Ethics and Implications of AI:

- Discussion on ethical considerations in AI.
- Identifying and managing risks associated with AI in business from security to staff re-structuring.
- Case studies on ethical dilemmas and risk mitigation.
- What are people saying about AI?

### 4. AI in Business Strategy & Managing AI Transformation.

- How AI is reshaping business models.
- The role of AI in enhancing customer experiences.
- Frameworks for implementing AI in your organization.
- Steps for managing the transformation process.
- Best practices for ensuring sustainable AI integration.
- Creating an AI-centric culture within your organization.
- Discussion on specific business challenges and opportunities in AI.
- Summary of key takeaways and next steps.