

1<sup>ST</sup> EDITION

SUPER UPGRADE PROGRAM



**IS MY  
FRIEND**



**UNDERSTAND, DISCOVER,  
LEARN AND USE  
ARTIFICIAL INTELLIGENCE**



**AI  
FOR ALL**

## GET READY TO GAIN SOME SUPER POWERS THANKS TO ARTIFICIAL INTELLIGENCE!

**A**ccording to a recent study published by the Institute for the Future, 85% of jobs that will exist in 2030 have not been invented yet. We do not think this is an exaggerated assessment. Imagine trying to explain to your grandmother what is a "Digital marketing expert", an "SEO consultant" or even a "Community manager"... None of these jobs existed 10 years ago, and they are very present nowadays.

In this climate of uncertainty, one truth seems to be widely accepted by companies and governments around the world: Artificial Intelligence (AI) is one of the most important (if not THE most important) field to master, in order to secure a job in the future.

But then you wonder:

How to be ready for AI if you don't know what it is, how it works and what it is useful for?  
How to know about AI future jobs and get prepared?  
How to identify an AI project for your business and choose the right tools among the market offer?  
How to find your place in the AI industry?

Our mission is to democratize AI and help you answer these questions. It doesn't matter if you have prior programming skills or not. We have created the *mojo* "AI is my friend" and its ecosystem that gathers AI actors from different backgrounds and offers trainings, workshops and events.

Different formats have been designed to understand, discover, learn all about AI and use it. You can choose how to experience AI, depending on your goals, your time and your skills.

All our contents can be delivered in English or in French, either online, or face to face.

In 1 year, we have already trained over 1000 people and worked with several academic institutions.

Because the AI revolution concerns everyone, YOU can also be part of this and call AI your friend!

Discover to our programmes on [www.aimyfriend.com](http://www.aimyfriend.com)







## No coding required

There is a common misconception that artificial intelligence, machine learning and data science are fields that can only be tackled by professionals with prior software development skills. This is not true!

For instance, most of people interested in machine learning start by acquiring the basis of Python and studying the mathematical basis of this field. They start building knowledge from there. This is totally acceptable and is commonly known as the "deductive" approach to learning.

Our methodology is the complete opposite as we use an "inductive" approach to teaching. Theory is learned through practice.

We provide "the big picture" of existing tools and propose a challenge to build a project.

To our knowledge, we are the only program in the world that uses the "inductive" approach to teach about data science and artificial intelligence. This allows us to share our knowledge with professionals who do not have any prior software development experience.

Today more than ever, there are several tools and solutions in the market that allow any professional to dive into these fields without any prior software development skills. Because the AI revolution concerns everybody, we all have the right to learn and acquire superpowers in this amazing field!

The courses on our program that require no prior software development experience are marked with this icon:



## EXPERIENCE AI YOUR WAY!

ALL COURSES CAN BE DELIVERED IN PRESENCE OR ONLINE

### UNDERSTAND

EVERYTHING THERE IS TO KNOW ABOUT AI

Choose a course depending on your objective

Average length

1h30

• Introduction to artificial intelligence .....		P. 10
• How to create value from data .....		P. 10
• The lifecycle of a data projet .....		P. 10
• The career perspectives and how to make money in AI? .....		P. 11
• The state of the art of chatbots .....		P. 11
• How AI will transform your company .....		P. 11
• The manager v4.0 .....		P. 12
• The AI home for all! .....		P. 12
• Take your marketing plan to the next level with AI! .....		P. 12
• The innovation in the healthcare industry thanks to AI! .....		P. 13
• The innovation in the security industry thanks to AI! .....		P. 13
• Using data in an AI project : The legal challenge .....		P. 13

### DISCOVER

THE SUPER POWERS OF AI

Choose a course depending on your objective

Average length

0,5 to 1 day

• Discover Artificial intelligence .....		P. 16
• Introduction to Data Science .....		P. 16
• Deep learning with TensorFlow .....		P. 17
• Stats to explore and analyse data .....		P. 17
• Deep learning from scratch .....		P. 18
• Create a chatbot with Dialogflow .....		P. 18
• Design an AI solution for your company .....		P. 19
• Understand the AI ecosystem and integrate AI into your app .....		P. 19
• Generate a deep fake video with Deep Face Lab .....		P. 20

### LEARN

HOW TO BECOME AN AI MASTER

Choose a course depending on your objective

Average length

1 to 2 days

#### MACHINE LEARNING WORKSHOPS

STRUCTURED DATA .....	P. 22
• Code a stock exchange AI broker .....	P. 22
• Code a real estate AI agent .....	P. 22
• Code an AI capable of segmenting your customers .....	P. 23
• Code an AI capable of playing video games .....	P. 23
• Code an ethical AI free of sexism and discrimination .....	P. 24



## ... EXPERIENCE AI YOUR WAY!

### LEARN

HOW TO BECOME AN AI MASTER

Choose a course depending on your objective

Average  
length

1 to 5 days

#### COMPUTER VISION ..... P. 24

- Code an AI that recognizes fashion products ..... P. 24
- Code an AI capable of doing facial recognition ..... P. 25
- Code an AI able to detect and segmentate objects in a picture ..... P. 25
- Code an AI that detects objects in real time ..... P. 26
- Code an AI capable of driving a toy car ..... P. 26
- Code an AI capable of applying art styles to a picture ..... P. 27
- Code an app capable of generating deep fakes ..... P. 27

#### NATURAL LANGUAGE PROCESSING (NLP) ..... P. 28

- Code an AI capable of understanding texts ..... P. 28
- Code an AI capable of generating texts ..... P. 28
- Code a chatbot with TensorFlow ..... P. 29

#### SIGNAL PROCESSING ..... P. 29

- Code an AI able to recognize your commands ..... P. 29
- Code an AI to recognize your voice ..... P. 30
- Code a voice to text app ..... P. 30
- Code a text to voice app ..... P. 31
- Code a music generation AI ..... P. 31

#### ROBOTICS ..... P. 32

- Build a robot with Arduino ..... P. 32
- Build a robot with Raspberry Pi ..... P. 32
- Build an object tracking robot ..... P. 33

#### DEVELOP YOUR DATA SCIENCE SKILLS ..... P. 33

- Data manipulation and linear algebra with Python ..... P. 33
- Web scraping, forms and data mining ..... P. 34
- Devops for Data Science ..... P. 34
- Data visualisation ..... P. 35
- Data preparation and feature engineering ..... P. 35
- Implementing a machine learning model as an API ..... P. 36
- Machine learning on GPU and TPU ..... P. 36
- Understand AI research papers ..... P. 37

## ... EXPERIENCE AI YOUR WAY!

### USE

HOW TO BECOME AN AI MASTER

Choose a course depending on your objective

Average  
length

1 to 4 days

#### LEARN TO CODE THE AI ..... P. 40

- Python for machine learning ..... P. 40
- Pandas for machine learning ..... P. 40
- Numpy for machine learning ..... P. 41
- SkLearn for machine learning ..... P. 41
- TensorFlow ..... P. 42
- Pytorch ..... P. 42
- R for machine learning ..... P. 43

#### MASTER THE TOOLS OF THE TRADE ..... P. 43

- Spark ..... P. 43
- Azure ML Studio ..... P. 44
- Dataiku ..... P. 44
- DialogFlow ..... P. 45
- Hadoop ..... P. 45
- Machine learning on Google Cloud Platform ..... P. 46
- Machine learning on AWS ..... P. 46
- Machine learning on Microsoft Azure ..... P. 47
- Machine learning on IBM ..... P. 47

### CUSTOMIZE

AI AND DATA SCIENCE - COURSES  
TO YOUR PROGRAM

8 hours to 6 months or 1 year

- Tailor-made courses for Schools, Universities and Organizations ..... P. 50

### INNOVATE

BY INTEGRATING AI TO YOUR  
BUSINESS

- 1 up to 4 steps to transform your business with AI ..... P. 52

#### AI DREAM

- Draft the superpower that you want to develop ..... P. 53

#### GET IN CONTACT!

- Our contact information ..... P. 55



# UNDERSTAND

EVERYTHING THERE IS TO KNOW  
ABOUT AI

Deepen your  
knowledge of artificial  
intelligence, machine learning  
and other data related topics  
by attending to one or several  
of our understand  
courses.





## INTRODUCTION TO ARTIFICIAL INTELLIGENCE



Artificial intelligence... you may have already heard about it and you probably have some ideas of what it is, how does it work and what to do with it. But are you really sure you know about this topic? Join this course to broaden your perspective and have a better understanding of AI.

### Course



Duration : 1h30

## THE CAREER PERSPECTIVES AND HOW TO MAKE MONEY IN AI?



AI creates different jobs and careers. From researchers to data scientists, machine learning developers and data engineers and even non-technical folk have the opportunity to make money with AI. This course explains the different career perspectives and ways in which YOU can make money with artificial intelligence.

### Course



Duration : 1h00

## HOW TO CREATE VALUE FROM DATA



Data has been described as the "new oil" of this century and many organizations are currently asking the question "how to create value from my data"? In this course, we will explain with real case scenarios, how to transform raw data into powerful insights and tools that can help your company gain in competitiveness.

### Course



Duration : 1h30

## THE STATE OF THE ART OF CHATBOTS



Chatbots are becoming a hot topic nowadays. They are used by many organizations around the world, especially to automate repetitive discussions, such as technical support, pre sales questions and HR enquiries. Learn what are chatbots, how do they work and know how to compare the current solutions in the market.

### Course



Duration : 1h30

## THE LIFECYCLE OF A DATA PROJÉT



Learn how to structure a data science project from scratch. From asking the right questions to collecting, cleaning the data and getting useful insights, we share with you the best practices we have gained from our experiences and we share the tools we use to gain time and be more competitive.

### Course



Duration : 1h30

## HOW AI WILL TRANSFORM YOUR COMPANY



Artificial intelligence already has a profound impact on our society and how we live and work. This course will explain how AI is disrupting in all fields and how YOUR company will need to adapt it if it wants to survive.

### Course



Duration : 1h30



## THE MANAGER V4.0



Learn how to harness the power of AI to your advantage and understand how artificial intelligence affects organisations and managers in the era of the 4th industrial revolution.

### Course



Duration : 1h00

## THE AI HOME FOR ALL!



Learn how to power your home with AI for a very low budget. Understand the offer of smart home vendors, the market players and the ecosystem by taking your house to the next level and giving it AI powers!

### Course



Duration : 1h00

## TAKE YOUR MARKETING PLAN TO THE NEXT LEVEL WITH AI!



Learn how to use AI to your advantage and how to use it to do better marketing. Be inspired from real use case scenarios and discover all the potential of AI at your fingertips! From automated translation, to personalized recommendations and chatbots, put artificial intelligence at the service of your marketing plan.

### Course



Duration : 1h00

## THE INNOVATION IN THE HEALTHCARE INDUSTRY THANKS TO AI!



The nature of medical data requires professionals to collect it and handle it with extra care. Discover how health professionals and companies all around the world are innovating and adapting to the future, thanks to artificial intelligence. From cancer detection to recent advances in radiology and personalized treatment, learn how AI shapes the future of our health.

### Course



Duration : 1h30

## THE INNOVATION IN THE SECURITY INDUSTRY THANKS TO AI!



Discover how the security industry is currently being challenged and transformed by artificial intelligence. From automatic theft detection, to anomaly tagging in video footages and searching for missing persons. Artificial intelligence will help us feel more secure, but at what cost?

### Course



Duration : 1h30

## USING DATA IN AN AI PROJECT : THE LEGAL CHALLENGE



At a time of the development of artificial intelligence, it sometimes seems difficult to reconcile data protection and big data. What data can we use? How to comply with the regulations? What are the risks?

### Course



Duration : 1h30



# DISCOVER

THE SUPER POWERS OF AI

Learn about artificial intelligence, machine learning and other data related topics, by participating to our discovery courses.





## DISCOVER ARTIFICIAL INTELLIGENCE



One day to discover artificial intelligence, how it works and how it is used by companies around the world. Build your own artificial intelligence, capable of classifying images and discover the amazing career perspectives in this field.

### Learning path

- ⌚ DURATION: 8 hours
- ✓ PREREQUISITES: None
- ★ LEVEL: Beginner

**AI FOR ALL**  
No coding required

### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.

## INTRODUCTION TO DATA SCIENCE



From formulating the right questions, to collecting the right data, analysing it and using it to make data driven decisions... understand in detail what data science is, how it is used around the world and what it takes to become a professional in this promising new field.

### Learning path

- ⌚ DURATION: 8 hours
- ✓ PREREQUISITES: None
- ★ LEVEL: Beginner

**AI FOR ALL**  
No coding required

### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.



## DEEP LEARNING WITH TENSORFLOW

Discover the advanced technique of Deep Learning and build your own deep neural network to tackle a real world data science problem, by using Tensorflow, the most popular machine learning library in the world!

### Learning path

- ⌚ DURATION: 8 hours

- ✓ PREREQUISITES: None
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- All professionals with basic software development basis.

## STATS TO EXPLORE AND ANALYSE DATA



- Learn to use the right statistical techniques to deeply explore and analyse data.
- Learn how to pretty visualise your data and make it tell a story.
- Learn how to quickly find the hidden insights and trends in your raw data.

### Learning path

- ⌚ DURATION: 8 hours
- ✓ PREREQUISITES: Introduction to data science
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.



## DEEP LEARNING FROM SCRATCH



Get your hands dirty by learning how deep learning works "under the hood" and go beyond your limits by coding your own deep learning framework from scratch in python!

### Learning path

DURATION: 8 hours

- ✓ PREREQUISITES: Deep Learning with TensorFlow
- ★ LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CREATE A CHATBOT WITH DIALOGFLOW



Learn about chatbots, how they work and how they revolutionize customer service and support teams. Build, train and distribute your own chatbot by using DialogFlow, the world's most popular chatbot platform in the world.

### Learning path

DURATION: 8 hours  
✓ PREREQUISITES: None  
★ LEVEL: Beginner

No coding required

### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.

## DESIGN AN AI SOLUTION FOR YOUR COMPANY



Apply the Design Thinking methodology to identify user insights (internal or external) and to prototype an AI solution that is desirable, feasible and viable. At the end of the workshop you'll have aligned your team on an AI solution to develop and you'll have an understanding of how to structure the development and how much would it cost to launch it.

### Learning path

DURATION: 8 hours

- ✓ PREREQUISITES: None
- ★ LEVEL: Beginner
- No coding required

### TARGET AUDIENCE

- Cross functional team of 5 persons minimum, from an established company or a startup, who wish to have a better understanding of AI and identify a suitable project for its business.

## UNDERSTAND THE AI ECOSYSTEM AND INTEGRATE AI INTO YOUR APP



Learn how to inject AI super powers into an app by using machine learning as a service apis from the world's leading vendors (AWS, Google, Microsoft, IBM, etc) and get a broader understanding of the AI ecosystem.

### Learning path

DURATION: 4 hours

- ✓ PREREQUISITES: Software development basis in any programming language. Understand functions, variables, loops, etc.
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- All professionals with basic software development basis.



## GENERATE A DEEP FAKE VIDEO WITH DEEP FACE LAB

### Learning path

 DURATION:  
8 hours

✓ PREREQUISITES: None

★ LEVEL: Beginner

 No coding  
required

### TARGET AUDIENCE

- Artists
- Students and professionals in search of career perspectives
- Curious people in search of a new challenge.



Have you heard about deep fakes ?  
It is the new AI trend and it involves  
replacing the face of a person in a  
video with another person's face.  
Learn how this technology works  
and what you can (and shouldn't)  
do with it. To use responsibly.

# LEARN

HOW TO BECOME AN AI MASTER

We believe that practical  
knowledge is more useful than theoretical  
knowledge. We therefore propose to learn about  
artificial intelligence topics by building real world apps.

These projects can also be used and showcased as  
part of a portfolio so that you can have  
something concrete to showcase your  
skills to an employer.





# MACHINE LEARNING WORKSHOPS

## STRUCTURED DATA

### CODE A STOCK EXCHANGE AI BROKER



Feed an AI with stock exchange data and ask it to make predictions on your behalf! What stocks should you buy and when? How to become a millionaire fast? Learn the basics of supervised learning and regression by building a real life stock exchange AI agent that works for you.

#### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow



LEVEL: Beginner

#### TARGET AUDIENCE

- All professionals with basic software development basis.



### CODE A REAL ESTATE AI AGENT

Feed an AI with real estate data and ask it to sort out the good from the bad housing offers in the market. Learn the basics of supervised learning and classification while teaching an AI to find you the best property in town!

#### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow



LEVEL: Beginner

#### TARGET AUDIENCE

- All professionals with basic software development basis.



Find patterns and structures hidden in the data to make data driven decisions. Learn the basics of unsupervised learning and discover the k-means algorithm applying it to customer data.

### CODE AN AI CAPABLE OF SEGMENTING YOUR CUSTOMERS

#### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow



LEVEL: Beginner

#### TARGET AUDIENCE

- All professionals with basic software development basis.

### CODE AN AI CAPABLE OF PLAYING VIDEO GAMES



Learn the basis of reinforcement learning by teaching an AI to play video games and get good at it.

#### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow



LEVEL: Advanced

#### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge



## CODE AN ETHICAL AI FREE OF SEXISM AND DISCRIMINATION



Discrimination is a real problem in AI, due to the fact that data is historically biased. Learn how to tackle sexism and discrimination problems in machine learning algorithms with dimensionality reduction techniques (DimR) and why it matters to build ethical AI.

### Learning path



**DURATION:** 15 hours



**PREREQUISITES:** Deep learning with TensorFlow



**LEVEL:** Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## COMPUTER VISION



Take your first steps in the amazing field of computer vision and discover the algorithms that allow a machine to classify images. Learn about convolutional neural networks and teach a machine to "see" things!

## CODE AN AI THAT RECOGNIZES FASHION PRODUCTS

### Learning path



**DURATION:** 15 hours



**PREREQUISITES:** Deep learning with TensorFlow



**LEVEL:** Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE AN AI CAPABLE OF DOING FACIAL RECOGNITION



Learn the differences between face verification and face recognition and build your own facial recognition technology and teach it how to recognize you.

### Learning path



**DURATION:** 15 hours



**PREREQUISITES:** Deep learning with TensorFlow



**LEVEL:** Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE AN AI ABLE TO DETECT AND SEGMENTATE OBJECTS IN A PICTURE



Grow your computer vision skills and learn how to detect objects and segments inside an image.

### Learning path



**DURATION:** 15 hours



**PREREQUISITES:** Build an AI that recognizes fashion products



**LEVEL:** Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge



## CODE AN AI THAT DETECTS OBJECTS IN REAL TIME



### Learning path



DURATION: 15 hours



PREREQUISITES: Build an AI able to detect and segmentate objects in a picture

★★ LEVEL: Advanced

Grow your computer vision skills and learn how to detect objects in real time inside an image by using the YOLO (You only look once) algorithm.

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE AN AI CAPABLE OF DRIVING A TOY CAR



Learn the basics of autonomous driving with supervised learning. Collect the data, train your model and put your machine learning skills to the test

### Learning path



DURATION: 15 hours



PREREQUISITES: Build an AI that detects objects in real time

★★ LEVEL: Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE AN AI CAPABLE OF APPLYING ART STYLES TO A PICTURE



Learn the basis of generative adversarial networks (GANs) by teaching a machine a particular art style (Van Gogh, Picasso, Rembrandt, etc) and making it "transfer" the style to another picture by using neural style transfer techniques.

### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow

★★★ LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE AN APP CAPABLE OF GENERATING DEEP FAKES



Use generative adversarial networks to build an app capable of generating deep fake videos.

### Learning path



DURATION: 15 hours



PREREQUISITES: Code an AI capable of applying art styles to a picture

★★ LEVEL: Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge



## NATURAL LANGUAGE PROCESSING (NLP)

### CODE AN AI CAPABLE OF UNDERSTANDING TEXTS

#### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow



LEVEL: Intermediate



Learn the basis of natural language understanding (NLU) by teaching a machine how to process text and understand human language. From entity extraction to sentiment analysis, take a dive in one of the most promising fields of machine learning!

#### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

### CODE AN AI CAPABLE OF GENERATING TEXTS

#### Learning path



DURATION: 15 hours



PREREQUISITES: Build an AI capable of understanding texts



LEVEL: Advanced

Try and defeat the Turing test !! Learn the basis of natural language generation (NLG) by teaching a machine how to generate texts from structured data and how to generate text in a "human" way.

#### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

### CODE A CHATBOT WITH TENSORFLOW



Learn how chatbots work under the hood and build your own chatbot solution in python, by using tensorflow, the world's most popular machine learning library.

#### Learning path



DURATION: 15 hours



PREREQUISITES: Build an AI capable of generating texts



LEVEL: Advanced

#### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## SIGNAL PROCESSING

### CODE AN AI ABLE TO RECOGNIZE YOUR COMMANDS

#### Learning path



DURATION: 15 hours



PREREQUISITES: Deep Learning with TensorFlow



LEVEL: Intermediate



Dive into the amazing field of voice recognition and code an app capable of recognizing and reacting to a keyword or phrase, such as "Ok Google", "Hey Alexa", or any other of your choice.

#### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge



## CODE AN AI TO RECOGNIZE YOUR VOICE

### Learning path



DURATION: 15 hours



PREREQUISITES: Deep learning with TensorFlow

★★★ LEVEL: Intermediate



Are you a security freak? Teach a machine to recognize your own voice and to only listen to your commands.

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE A VOICE TO TEXT APP

TEX



Code an algorithm capable of understanding a voice command and transforming it into text.

### Learning path



DURATION: 15 hours



PREREQUISITES: Deep Learning with TensorFlow

★★★ LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE A TEXT TO VOICE APP

T



Code an algorithm capable of generating an audio signal from a text input.

### Learning path



DURATION: 15 hours



PREREQUISITES: Deep Learning with TensorFlow

★★★ LEVEL: Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## CODE A MUSIC GENERATION AI



Learn about recurrent neural networks (RNN) and how the temporal dimension of data affects its meaning by teaching an AI what is jazz. Use your AI to generate unique songs for you, based on what it learned.

### Learning path



DURATION: 15 hours



PREREQUISITES: Deep Learning with TensorFlow

★★★ LEVEL: Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge



## ROBOTICS

### BUILD A ROBOT WITH ARDUINO



Learn the basics of robotics with Arduino and build a robot capable of reacting to your input.

#### Learning path

- DURATION: 8 hours
- PREREQUISITES: None
- LEVEL: Beginner

#### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.

### BUILD A ROBOT WITH RASPBERRY PI



Learn the basics of robotics with Raspberry Pi and teach a robot how to make more advanced actions.

#### Learning path

- DURATION: 8 hours
- PREREQUISITES: None
- LEVEL: Beginner

#### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.

### BUILD AN OBJECT TRACKING ROBOT



Teach a robot how to identify, track and pick up an object using its camera.

#### Learning path

- DURATION: 15 hours
- PREREQUISITES: Build a robot with Raspberry Pi Code an AI able to detect and segmentate objects in a picture
- LEVEL: Advanced

#### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge

## DEVELOP YOUR DATA SCIENCE SKILLS

### DATA MANIPULATION AND LINEAR ALGEBRA WITH PYTHON



Learn the basis of linear algebra and how to manipulate data in Python. This is one of the most fundamental skills data scientists need in the workplace.

#### Learning path

- DURATION: 8 hours
- PREREQUISITES: None
- LEVEL: Beginner

#### TARGET AUDIENCE

- All professionals with basic software development basis.



## WEB SCRAPING, FORMS AND DATA MINING



Learn how to create your own datasets from scratch by creating forms, scraping data from the web and storing it in SQL databases. This skill is highly used by data scientists and engineers all around the world and it is necessary for any data science job.

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Beginner

### TARGET AUDIENCE

- All professionals with basic software development basis.



A good data scientist does not only know how to train a machine learning model. He/she should also be able to take it to production like a pro! From containerization to version control and orchestration, learn DevOps skills in order to share your work with the world!

## DEVOPS FOR DATA SCIENCE

### Learning path



DURATION: 30 hours



PREREQUISITES: None



LEVEL: Beginner

### TARGET AUDIENCE

- Data Scientists
- Machine Learning Professionals
- Software engineers

## DATA VISUALISATION



Before doing any machine learning or getting started with any data project, it is always a good idea to visualize and study your data. Learn how to use the existing tools to visualize data and also create your own data visualization tools!

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Beginner

### TARGET AUDIENCE

- All professionals with basic software development basis.

## DATA PREPARATION AND FEATURE ENGINEERING

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Beginner



A machine learning algorithm is only as good as its training variables are. Learn how to clean and prepare the data, but also to choose which variables to use in your algorithm.

### TARGET AUDIENCE

- All professionals with basic software development basis.



## IMPLEMENTING A MACHINE LEARNING MODEL AS AN API

API

### Learning path



DURATION: 8 hours



PREREQUISITES: None



LEVEL: Beginner

Go from idea to product and learn how to make your machine learning model available for others by implementing it as an API.

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.

## MACHINE LEARNING ON GPU AND TPU



Go faster in your machine learning projects by harnessing the power of parallel computing. Learn how to train your machine learning models on a GPU or a TPU.

### Learning path



DURATION: 8 hours



PREREQUISITES: Deep learning TensorFlow



LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge



## UNDERSTAND AI RESEARCH PAPERS

AI researchers constantly push the boundaries of science by publishing the results of their research as academic papers. There are very interesting publications every day that will ultimately impact the way we use AI. Learn how to understand, decode and implement AI research publications.

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Advanced

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge





Learn how to use the state of the art tools, languages and platforms you will surely need in the workplace.



# LEARN TO CODE THE AI

## PYTHON FOR MACHINE LEARNING



Learn how to use Python to perform machine learning tasks.

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Beginner

### TARGET AUDIENCE

○ Professionals with basic machine learning skills and knowledge.

## PANDAS FOR MACHINE LEARNING



Learn how to use pandas, the most popular data analysis library in python, to perform machine learning tasks.

### Learning path



DURATION: 8 hours



PREREQUISITES: Python for machine learning



LEVEL: Beginner

### TARGET AUDIENCE

○ Professionals with basic machine learning skills and knowledge.

## NUMPY FOR MACHINE LEARNING



Learn how to use numpy, the most popular math library in python, used for manipulation of multi-dimensional arrays and matrices.

### Learning path



DURATION: 8 hours



PREREQUISITES: Python for machine learning



LEVEL: Beginner

### TARGET AUDIENCE

○ Professionals with basic machine learning skills and knowledge.

## SKLEARN FOR MACHINE LEARNING



Learn how to use Sklearn, a very popular machine library in python.

### Learning path



DURATION: 8 hours



PREREQUISITES: Python for machine learning



LEVEL: Beginner

### TARGET AUDIENCE

○ Professionals with basic machine learning skills and knowledge.



## TENSORFLOW



Learn the ins and outs of TensorFlow, the most popular machine learning library in the world, originally developed by Google and now open source and available to all.

### Learning path

- 🕒 DURATION: 15 hours
- ✓ PREREQUISITES: Python for machine learning
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.

## PYTORCH

Learn the ins and outs of Pytorch, one of the most popular machine learning libraries in the world, originally developed by facebook and now open source and available to all.

### Learning path

- 🕒 DURATION: 15 hours
- ✓ PREREQUISITES: Python for machine learning
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.

## R FOR MACHINE LEARNING



Learn how to use R to perform machine learning tasks.

### Learning path

- 🕒 DURATION: 15 hours
- ✓ PREREQUISITES: None
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.

## MASTER THE TOOLS OF THE TRADE

## SPARK



Learn how to use of the world's most used cluster computing frameworks

### Learning path

- 🕒 DURATION: 15 hours
- ✓ PREREQUISITES: None
- ★ LEVEL: Beginner

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.



## AZURE ML STUDIO



### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Intermediate



No coding required

Learn how to use Azure ML Studio, a state of the art platform from Microsoft, that allows you to do machine learning without any coding skills.

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.

## DATAIKU



Learn how to use the Dataiku platform, a state of the art Machine Learning platform made in France!

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Intermediate



No coding required

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.

## DIALOGFLOW



Learn how to use DialogFlow, the most popular framework for developing and training chatbots.

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Beginner



No coding required

### TARGET AUDIENCE

- Entrepreneurs and business managers who wish to have a better understanding of AI.
- Students and professionals in search of career perspectives.
- Curious people in search of a new challenge.

## HADOOP



Learn how to use Hadoop, a set of open source solutions for distributed storage and processing of big data.

### Learning path



DURATION: 15 hours



PREREQUISITES: None



LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic machine learning skills and knowledge.



## MACHINE LEARNING ON GOOGLE CLOUD PLATFORM



Learn how to use all the machine learning tools and infrastructure proposed by Google Cloud.

### Learning path

- DURATION: 30 hours
- PREREQUISITES: None
- LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic devops skills and machine learning knowledge.

## MACHINE LEARNING ON AWS



Learn how to use all the machine learning tools and infrastructure proposed by Amazon Web Services.

### Learning path

- DURATION: 30 hours
- PREREQUISITES: None
- LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic devops skills and machine learning knowledge.

## MACHINE LEARNING ON MICROSOFT AZURE



Learn how to use all the machine learning tools and infrastructure proposed by Microsoft Azure.

### Learning path

- DURATION: 30 hours
- PREREQUISITES: None
- LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic devops skills and machine learning knowledge.

## MACHINE LEARNING ON IBM



Learn how to use all the machine learning tools and infrastructure proposed by IBM.

### Learning path

- DURATION: 30 hours
- PREREQUISITES: None
- LEVEL: Intermediate

### TARGET AUDIENCE

- Professionals with basic devops skills and machine learning knowledge.





# CUSTOMIZE

AI AND DATA SCIENCE  
COURSES TO YOUR PROGRAM

*Tailor-made courses for  
Schools, Universities  
and Organizations*



## TAILOR-MADE COURSES

Our teaching philosophy can be summarized in three principles:

- 1 Learn by doing.
- 2 Practice on real case scenarios.
- 3 Don't reinvent the wheel.

Our courses focus on practical implementations, as learners are presented with real life problems they can only solve with AI. Knowledge of the topics is not acquired on a theoretical level, but because learners need it in order to solve the use cases presented to them during the course.

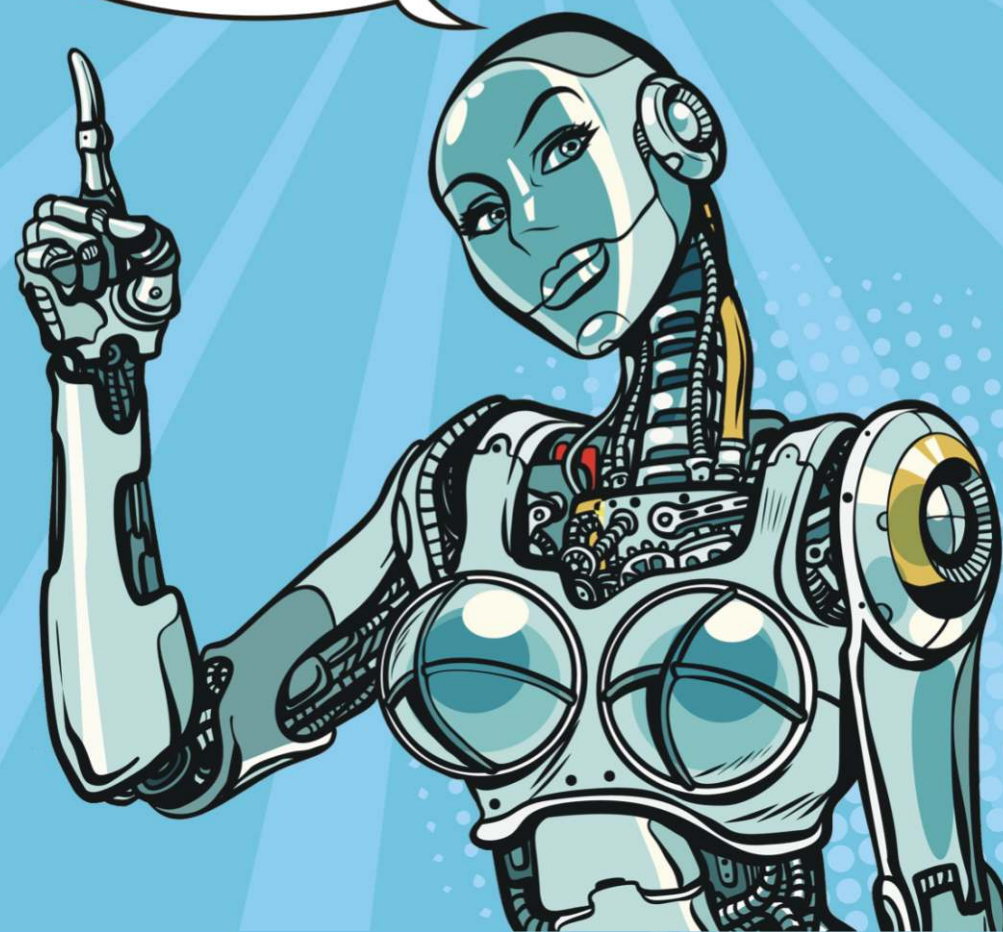
The initial problems presented can be solved with existing tools (highly abstract, but with little flexibility) and as the problems get more complex, the learners need to dive deeper in the study of AI and acquire different skills to solve the use cases and pass the course.

All our courses can be tailored to fit your specific needs (from 8 hours to 6 months or even a full year) and they can be taught to students with or without prior software development skills.

# INNOVATE

BY INTEGRATING AI TO YOUR BUSINESS

Either you're questioning  
or ready to move forward  
for AI, we can help!





## HOW WILL ARTIFICIAL INTELLIGENCE TRANSFORM YOUR BUSINESS?

Either you wonder or are convinced about integrating AI to your business, we can advise you!

Depending on your maturity about AI we can accompany you in up to 4 steps.



### ACCULTURATE

your team to AI, inspire with use cases and define an AI project to start



### DESIGN

a user centric AI solution thanks to a Design Thinking approach, prototype it and test with users



### TRAIN AND COACH

your team to develop skills to be able to manage an AI project (e.g. Data Science, Machine Learning...)



### DEVELOP

the AI that will transform your Organization

## AI DREAM

Draft here the superpower that you want to develop with artificial intelligence  
Picture it with your Smartphone and email it by scanning this QR-Code





## GET IN CONTACT WITH US!

Our activities are based in Paris (France), under the Brand "IA C'EST MON DADA", which is a local translation of "AI IS MY FRIEND".



Whatever you need, either to join a course, to customize contents or just to get details, we'll be pleased to answer it !

Contact us at [info@iamondada.com](mailto:info@iamondada.com)

## ... AND FOLLOW OUR AGENDA

Our mission being to democratize AI for ALL, we welcome public audience to attend to our various events and trainings, in our venue or online.

You can check our agenda on:



[www.aimyfriend.com](http://www.aimyfriend.com) / [www.iamondada.com](http://www.iamondada.com)



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CONTENTS ON**

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