

CONTINUING
TRAINING
EFELIA CÔTE D'AZUR

AI Training for
businesses

About EFELIA Côte d'Azur, the French School of Artificial Intelligence

EFELIA Côte d'Azur is a project certified « skills and jobs of tomorrow », supported by the government, and carried by University Côte d'Azur. Its mission is to train people in the field of Artificial Intelligence (AI), especially for companies and local authorities. EFELIA Côte d'Azur, is the product of one of the biggest interdisciplinary institutes in AI in France, it has been selected for funding by the National Research Agency for its academic excellence.

The professionals from EFELIA Côte d'Azur, recognized for their scientific excellence (Computer science, applied Mathematics, sociology, management sciences), develop training programs with potential applications in all sectors of activity.

The training courses cover the basic principles of AI for those who are or will be in contact with AI systems (no matter the field), some advanced topics for companies transitioning to AI or already engaged in AI, practises and tools, as well as multidisciplinary aspects related to ethical, economic, legal, social and environmental stakes related to AI.

EFELIA Côte d'AZUR provide a catalog of training as well that can **be adapted** or **co-designed**, to **create tailored programmes for national companies** (workshops, conferences, trainings, short interventions, etc.), either in presential or remotely.

Our training delivers in-depth and substantial content, with the aim of going beyond the hype to expose the techniques that underlie contemporary AI, in order to provide a true understanding and allow each company or local authority to design its AI strategy in the best possible way.



Our Training Courses

Generative AI and business transformation	p.4
LLM & Administration.....	p.5
Appropriate AI and its deployment challenges in professional environment....	p.6
Generative AI for engineers.....	p.7
Advanced Deep Learning.....	p.8
Statistical methods for decision making.....	p.9
AI in education: flaws, challenges, and prospects.....	p.10
AI : Research Methods and Challenges	p.11

Generative AI and business transformation

Description :

Generative AI techniques and tools open up new opportunities for professional strategies and practises in many fields. This training course aims to present their fundamentals principles in order to consider their capacities, limitations, and risks, as well as operational approaches and deployment challenges, in light of the latest knowledge in AI innovation strategy and AI transformation in companies. We will pay attention to upcoming regulations, such as the European AI Act, and the impact on the positioning of the approaches positionnement chosen by the company in terms of generative AI.



Duration

1 day

Public

This training course is aimed at non-engineers as well as engineers, of all levels and from all professions (Project managers, Project leaders, etc.)

Learning objectives

- Identify the working principles of generative AI methods, their capabilities and their limitations
- Understand the regulation in force, the opportunities and challenges of deploying generative AI tools in the company

Modalities

The training is provided in person with a practical and interactive approach.

Prerequisites

No prerequisites are necessary to participate in this training

Fees

250€ per participant (open to 10 participants)

LLM and administration

Présentation

The field of AI is providing new tools that are having a growing impact on professional practices, but also on personal practices such as learning, and on society as a whole. This training course aims to support the potential use of AI tools and to understand their underlying principles, while developing a critical view of their actual effectiveness and the issues they raise (technical, societal, environmental, ethical, etc.) for staff whose work is predominantly administrative.



Duration

1 day (6 hours)

Public

This training is intended for professionals responsible of administrative tasks.

Learning Objectives

- Provide a general overview of how LLM (Chat GPT, etc.) work.
- Be able to understand its scope but also its limitations.
- Be much more thoughtful about how you use them by putting them into perspective in relation to the concept of efficiency taken in a global sense

Modalities

The training course is provided online (self-paced : Videos modules and demonstrations, with a potential version in live sessions with instructors).

Prerequisites

No prerequisites are necessary to participate in this training.

Tarif

250€ per participant (open to 10 participants)

Appropriate AI and its deployment challenges in professional environment

Description

Modern Artificial Intelligence is a set of major advances in Applied Mathematics, statistics and Computer science. This field provide new tools and applications that are having an increasing impact on professional practises and society in its globality. This module is not a training course in prompt engineering. it doesn't have for aim to teach the technical specifics of AI, but rather to allow participants to understand the underlying concepts (What's inside the black box ?) in order to develop their critical thinking skills and make informed decisions about how they wish to use (or not) these AI tools, especially generative AI.



Duration

2 days

Public

This training course is intended for managers in the public or private sector (managers, project managers, project leaders)

Learning Objectives

- Analyse and contextualize the capabilities and limitations of current AI tools (issues of explainability, bias) in its historical context, by incorporating an understanding of the scientific, political, societal and environmental issues related to these technologies.
- Understand the impact and challenges associated with adopting AI tools in individual and collective work : how they potentially help, change professional practises, and/or pose new concerns.
- Decide, in light of the latest scientific insights in computer Science and Human and Social Sciences, whether, when, and how to use AI tools.

Modalities

The training is provided in person with a practical and interactive approach

Prerequisite

Be employed or seeking employment
No scientific background required

Fees

500 € per participant (for both of the 2 days), open to 10 participants

Generative AI for engineers

Description

Generative AI brings together a set of new machine learning models, often available through various AI systems (such as ChatGPT, DALL.E, Stable Diffusion, etc.), by opening up new opportunities for professional strategies and practices in many fields. This training aims to present their principles and the different strategies for use by engineers in the company. **It can be adapted to the target field.**



Duration

18 hours. 3 days (6h per day)

Public

This training course is intended for engineers, individuals with a scientific sensibility, and graduates in a scientific field outside of computer science.

Learning Objectives

- Identify the foundational models, their principles and limitations, and how they can be adapted to the company's data and tasks (prompt engineering, prompt tuning, fine-tuning).
- Develop an expertise implementing these adaptation methods for different types of data (image, video, sound, text, etc.)
- Understand learning strategies for generation (masking, variational, adversarial, diffusion)

Modalities

This training is provided in person with a practical and interactive approach.

- Presentation
- Discussion
- Practical workshop

Prerequisite

It's necessary to know how to program in Python to completely enjoy this training

Fees

1500 € per participant (open to 10 participant)

Advanced Deep Learning

Description

Deep Learning, is currently dominant machine learning approach (a branch of AI), for unstructured data, such as images or text. This training is aimed for persons with a background in engineering and programming, who wish to acquire advanced knowledge of these models and expertise in their implementation.



Duration

18 hours. 3 days (6h per day)

Public

This training is intended for engineers and persons mastering AI basics Python programming.

Learning Objectives

- Develop a deep understanding of models of deep learning models (convolutional neural networks, recurrent, transformers) for various types of data (image, text, sound, video, time series, tabular data).
- Explore the different learning strategies at the heart of generative AI (GAN network adversarial networks, diffusion models) and the resulting foundation models (dominant machine learning models)
- Acquire practical expertise in implementing different types deep learning models for various datas modalities.

Modalities

The training is provided in person with an interactive approach to anchor theoretical concepts in a practical application.

- Presentations
- Discussion on case studies
- Practical workdhop (with Python programming and critical performance analysis)

Prerequisite

Mastering the basics of AI and Programming in Python.

Fees

1500 € per participant (open to 10 participants)

Statistical methods for decision making

Description

Most of AI systems use large amount of data to infer rules that are then used to make decisions in new situations. The inference of these rules corresponds to the objective of statistics, which is to learn some characteristics of the process that generated the observed data and to measure the uncertainties associated with this inference; we talk about statistical learning too.



Duration

2 days

Public

This training is intended for people with basics knowledge of Mathematics and programming.

Learning Objectives

- Understand the nuances between statistics, machine learning and AI
- Identify the principles of statistical modeling and inference of statistical model parameters (inferential statistics).
- Mobilize supervised and unsupervised statistical methods to response to business issues

Modalities

The training is provided in presence with a practical and interactive approach.

- Presentations
- Discussions
- Case Studies
- Practical workshop (with programming in R)

Prerequisite

Basic knowledge in Mathematics and programming, because statistical methods will be implemented using R software.

Fees

1000 € per participant (open to 10 participants)

AI in education: flaws, challenges, and prospects

Présentation

This training doesn't aim to teach in depth the technical specifics of AI, but rather to allow participants to understand the underlying concepts, as well as its applications and implications for education, based on the latest research advances. By putting in light the limitations of current techniques and the scientific challenges, political, societal and environmental issues related to these technologies, participants will be able to develop their critical spirit and make better decisions about how they want to use (or not use) AI tools.



Durée

1 day (6 hours).

Public

The training is open to all the persons teaching at National Education, no matter their discipline or their level.

Learning Objectives :

- Explain what actual AI tools can do or not, and their societal and environmental challenges
- Understand the impact and challenges related to the adoption of AI tools in education (how they may help, change practises, or pose new problems)
- Decide, in light of the latest scientific knowledge, whether, when, and how to use AI tools in the context of their missions.

Modalities

The training is provided in person with a practical and interactive approach

Prerequisite

No prerequisite are necessary to participate in this training.

Tarif

250 € par participant (open to 10 participant.e.s)

AI : Research Methods and Challenges

Description

This training will allow you to understand the underlying concepts of AI, the main families of methods, recent advances, challenges and implications in various academic disciplines. You will discover how AI is used to solve complex problems in different fields.



Duration

1 day

Public

This training is intended for professionals in Research and higher Education (Teachers, Doctoral students, research engineers and staff with technical knowledge in Mathematics).

Learning Objectives

- Explain the key concepts and methods of AI,
- Understand the capacities, limitations and challenges of new systems of AI (such as LLM)
- Begin integrating the advances made by AI into your field of activity and/or research.

Modalities

This training is provided in asynchronous

Prerequisite

No prerequisite are necessary. However knowledges in Mathematics could allow you to better understand the content of this course.

Fees

250€ per participant (open to 10 participants)

Our training courses may be adapted depending on the specific needs of your company.

The face-to-face sessions can be held at your premises or at University Côte d'Azur.

Capacity of our training courses : 10 to 20 participants depending on the course.

To facilitate the reception of people with disabilities, please contact us before the desired date so that we can study the best way to adapt our training methods.

Contact

efelia.fc@univ-cotedazur.fr