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Course : Managing a machine learning project: the role of the product owner

Manage a machine learning project using best business practices

Practical course - 3d - 21h00 - Ref. IAY

Price : 2360 CHF E.T.

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AI is a powerful "technology" that impacts all business processes, transforms organizations and will change the way we work, providing a lever for profitability and innovation. These transformations can only be achieved with business teams who understand AI, its challenges and best practices. This in-depth but non-technical course enables product managers, project managers and product owners to turn AI into a lever for creating value and profitability. You will acquire the skills needed to lead a project using machine learning.

Teaching objectives

At the end of the training, the participant will be able to:

- Identify business issues that can benefit from ML (machine learning)
- Prioritize use cases
- Identify the right model for the right problem
- Structuring an ML product/project approach: from data preparation to production launch
- Analyze model performance from a business perspective
- Understand the challenges and risks associated with this type of project

Intended audience

Business project managers, product managers, product owners.

Prerequisites

Master project management.

PARTICIPANTS

Business project managers, product managers, product owners.

PREREQUISITES

Master project management.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

Practical details

Hands-on work

Theoretical presentations, group case studies, quizzes, demonstrations by the trainer, followed by hands-on practice to help you consolidate your knowledge.

Teaching methods

Active teaching, exchanges with AI experts.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

Course schedule

1 Artificial intelligence (AI) and machine learning (ML)

- The challenges of AI.
- Overview of AI (rules VS ML, hybrid systems...).
- Machine learning: concept and use cases.
- Regression, classification and clustering.
- Artificial neural networks/deep learning.
- NLP: principles and applications.
- Computer vision: principles and applications.

Exercise

Ice breaker to get you started.

2 AI use cases

- Presentation of corporate use cases.
- Selection of use cases for analysis.

Exercise

Business case analysis to determine whether ML is the right solution. Which approach to use?

3 Preparing for a machine learning project

- Challenges and risks.
- Skills required.
- Evaluate and prepare your data.
- Agility for ML projects.

Hands-on work

AI project: business canvas. Choose a problem to be addressed by ML. Fill in the canvas.

4 ML project: value creation

- From bread and butter to value creation.
- Customer-centric" approach, design thinking" approach.
- The challenges of integrating AI models into business processes.

5 ML algorithms

- Presentation.
- Modeling a problem in the machine learning sense: input/output.
- Main characteristic algorithms.
- Model hyperparameters.

6 End-to-end approach to the ML project

- Overfitting/underfitting: what are the solutions?
- Who does what in an ML project?
- With what methodology?
- From data acquisition to industrialization (illustrated by a use case).
- Data issues: quantity, quality, non-representativeness, focus on "imbalanced dataset".
- Features engineering: irrelevent features, how to select, extract and create new features.
- Data/algorithm issues, biases, privacy.

Hands-on work

Presentation of use cases: classification, clustering, NLP/classification. Select a use case, prepare your dataset. Visualize data. Present relevant "features".

7 Creating machine learning models

- The AI ecosystem.
- Overview of solutions, players and suppliers, existing online services from GAFAMs and start-ups.
- Python language, libraries :
- Data processing (NumPy, Pandas, matplotlib, etc.).
- From ML (Keras, scikit-learn...).
- From DL (Tensorflow).

Hands-on work

Implementation of an ML project and step-by-step monitoring of the project with the help of a data scientist coach (Preparation and visualization of data. Feature selection. Model training and evaluation. Performance measurement. Creation of a code-free ML model).

8 Business valuation issues

- Value creation.
- The challenges of evaluation.
- Performance.
- ROI, return on investment.

9 Project and organization practices

- Synthesis of best practices from a business perspective.
- Organizing skills within a data-driven organization.

Dates and locations

REMOTE CLASS
2026 : 4 May, 8 July, 14 Sep., 23 Nov.