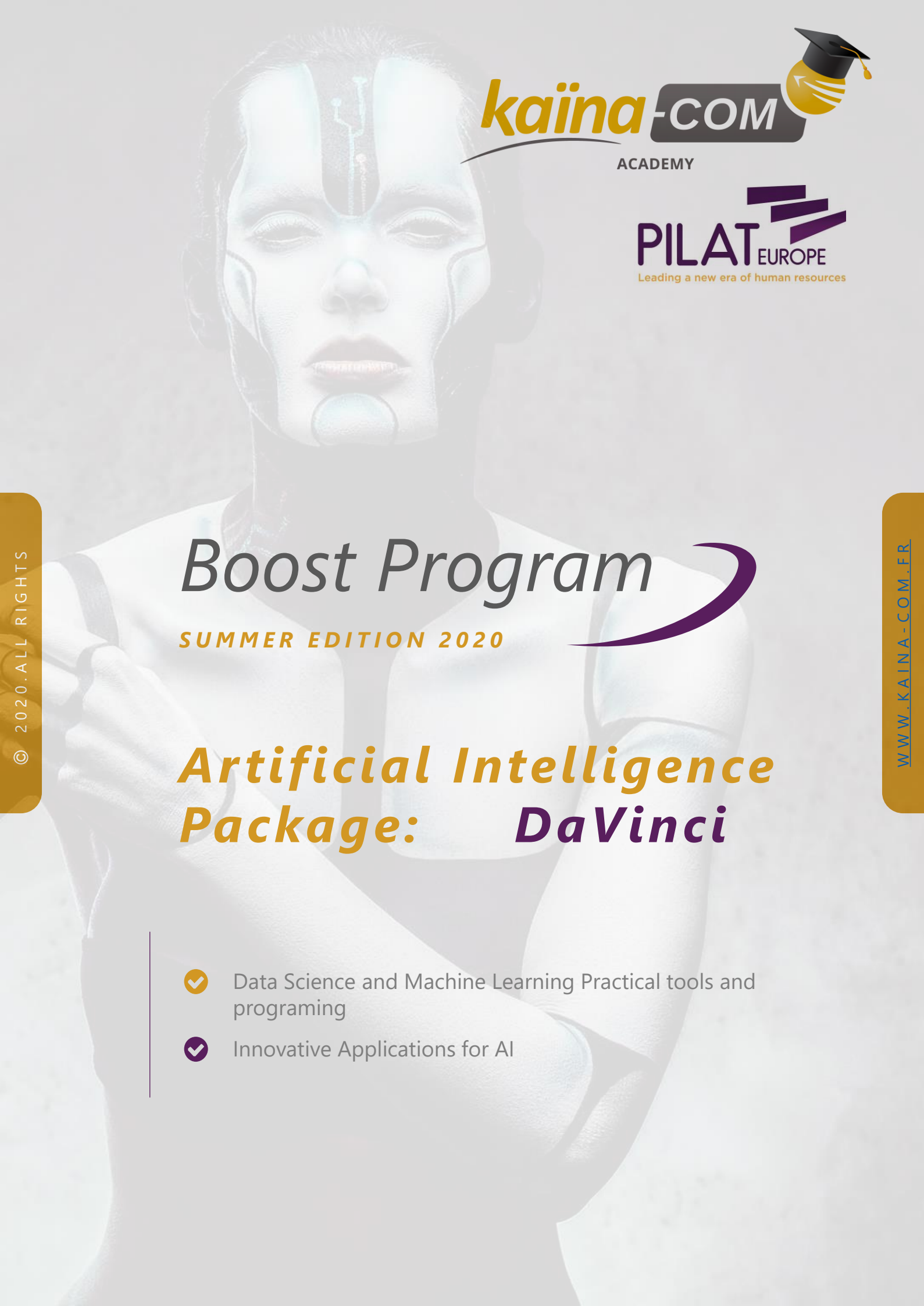

kaïna-COM ACADEMY

PILAT EUROPE
Leading a new era of human resources

Boost Program

SUMMER EDITION 2020

Artificial Intelligence Package: DaVinci

- Data Science and Machine Learning Practical tools and programing
- Innovative Applications for AI

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Training Catalogue
02/07/2020

KAÏNA-COM
TRAINING CATALOGUE

Data Science and Machine Learning Practical tools and programing

Basis of understanding the data scientist environment, focusing mainly on common frameworks to enable selecting the appropriate approach to the problems at hands

Nos locaux
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KDS001 – Data Science and Machine Learning Practical tools and programing

Reference	KDS001
Experience	☒ Beginner ☐ Intermediate ☐ Advanced
Duration	Training Program: • 2 days
Training Method	☐ I: i-learning, individual training (web-based training) ☒ V: v-learning, virtual class ☐ C: c-learning, classroom training **KAÏNA-COM** LE CARRÉ HAUSSMANN II, 6 Allée de la Connaissance 77127 Lieusaint - France
Prerequisite	Basic programming skills in C, Java or any other language
Audience	High level Managers, Presale Managers, IT Managers, QA and Technical Support or those who would like to understand the different problems that are suitable for machine learning and exercise different frameworks

Continued on next page

KDS001 – Data Science and Machine Learning Practical tools and programing, Continued

Objective

Data scientists use a set of algorithms which enables computers to solve problems that are classified on a higher complexity level than traditional algorithms. Examples of such cases are

- to predict a consumer behavior by its past choices,
- recognize a person within an image,
- "understand" written text,
- to predict a system failure or a cyber-attack.

Machine learning algorithms allow the computer to train and learn from its own mistakes and thus perfect its performance on new data.
This course gives the basis of understanding the data scientist environment, focusing mainly on common frameworks in order to enable selecting the appropriate approach to the problems at hands.
We will review various use cases and implement appropriate models and tools.

Continued on next page

KDS001 – Data Science and Machine Learning Practical tools and programing, Continued

Course Contents

Course Contents :

Table 1: KDS001 - Course Contents (Day#1)

Chapter	Description
Introduction to data science	• Examples and use cases • Statistics 101 • Machine learning introduction
Data preparation using various tools	• Exploratory data analysis • Cleaning the data • Filtering and scaling • Outliers and null values • PCA
Running machine learning algorithms	• Regression and decision trees • Statistical reasoning • Clustering • Weka Introduction
Mini project Part A: Recommendation System	• Data Preparation • Feature selection

Continued on next page

KDS001 – Data Science and Machine Learning Practical tools and programing, Continued

Course Contents, continued

Table 2: KDS001 - Course Contents (Day#2)

Chapter	Description
Machine learning in cloud environment, Big Data	• Classification • Association Rules • Decision Trees
Validation of Results	• Standard metrics • ROC curve analysis
Mini Project Part B: Recommendation System	• Estimation of different models • Demo
Summary including Q&A	• Summary including Q&A

Training Catalogue
02/07/2020

KAÏNA-COM
TRAINING CATALOGUE

Innovative Applications for AI - Seminar

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KDS011 – Innovative Applications for AI - Seminar

Reference KDS011

Experience
- ☒ Beginner
- ☒ Intermediate
- ☐ Advanced

Duration Training Program:
- 8 hours (4 hours/day)

Training Method
- ☐ I: i-learning, individual training (web-based training)
- ☒ V: v-learning, virtual class
- ☐ C: c-learning, classroom training

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Prerequisite None

Audience Project Managers, Product people and Managers, Developers and Architects who wants to know about AI.

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KDS011 – Innovative Applications for AI - Seminar, Continued

Objective

Machine learning and other AI technologies break software limitations and are especially proficient at solving problems and providing insights that couldn't be achieved with conventional technology. Artificial Intelligence will significantly expand the capabilities of technology to go above and beyond their current boundaries and will allow decision makers to create meaningful competitive advantages and even new product categories. The Innovative Solutions for AI seminar is aimed at managers and decision-makers to allow them an understanding of this technology and its capabilities and to give them the tools to make decisions for competitive advantages. We will review many industries – automotive, retail and marketing, health care, security – that are already using this technology to break free from the boundaries of the past. Specific case studies in retail and market analytics, computer vision, and automotive will be examined. Most importantly, we gain an understanding of the principles and scope of this technology.

Continued on next page

KDS011 – Innovative Applications for AI - Seminar, Continued

Course Contents

Course Contents :

Table 1: KDS011 - Course Contents

Chapter	Description
Introduction	In this talk we will review the different domains we have in AI, focusing mainly on machine learning and NLP. We'll describe a few popular algorithms in machine learning and how we use them in the retail market, CRM and Cyber-security domains. We will then review the work of a data scientist, from data preparation to data validation, to more advanced topics like model calibration and data science in the cloud.
When Technology Meets Reality: The Wide Scope of Machine Learning Applications	In recent years, machine learning has moved from research into reality. From automotive to healthcare and from cyber security to marketing. Everywhere we see projects, products and initiatives intent on harnessing this technology and thus overcoming past performance limitations. The lecture will review the wide scope of target industries together with their associated use cases. Special attention will be given to current market trends and prominent projects.
Data science in the Retail market	We will review the main challenges marketers have in the retail domain and different approaches that can be used to handle them. We then learn about common pitfalls that we face if our model is not carefully designed. We finish with an example of a model that achieves high scores when run on a real supermarket chain's data.

Continued on next page

KDS011 – Innovative Applications for AI - Seminar, continued

Course Contents, continued

Chapter	Description
Computer Vision	Computer vision is one of the most highly used machine learning fields. It is used by many industries, such as medical, automotive, robotics, defense and more. Our lecture will serve as an introductory review to computer vision, its uses, solutions, methods and relevant markets. It will start with the general picture, then we will go through the various applications which will be followed by a thorough market review.
Creating Automotive Intelligence-Machine Learning in Automotive	With the current technological transition occurring in the automotive industry, machine learning is becoming an enabling technology for the entire market. It starts with customer service, involving remote diagnostics and predictive maintenance, and continues with eco-system industries such as insurance telematics and connected car service. Such specified areas are only the appetizer–the most exciting challenges are in the areas of autonomous vehicles and driving assistance features. In this lecture we will review the various uses of artificial intelligence technologies in automotive and learn about the current status of their use in the industry. Special focus will be given to main players and also to attractive features. The lecture will include product demonstration clips.