



Machine Learning and Artificial Intelligence

Interview with Dr. Omar El Dakkak



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Who would benefit from attending this training programme?

The training programme targets professionals employed in highly technological fields, whose mission also involves processing high-dimensional data. Such professionals would greatly benefit from this programme as they would discover state-of-the-art models and tools in Machine Learning and Data Science that will not only help them in accomplishing their routine tasks, but will enable them to bring about sought-after innovation in today's world.

What are the academic requirements to apply for this course?

Participants are expected to be familiar with basic to intermediate-level notions in Mathematics, Statistics and Computer Science.

What are the skill sets and knowledge a student acquires from attending this executive training programme?

Generally speaking, on the one side, participants will develop sharp competencies in modern tools associated to Artificial Intelligence. On the other side, they will develop a mature understanding of the opportunities and challenges posed by a large-scale-use of artificial intelligence devices. More specifically, the programme aims to provide participants with state-of-the-art competencies in:

- Mathematical and computational tools of data processing and artificial intelligence;
- Computational tools associated with cloud computing and big data;
- Machine learning models and, in particular, deep learning;

- Understanding the professional and regulatory opportunities and challenges linked to handling data, especially in the fields of insurance and risk-management;
- Understanding the ethical issues associated with a large-scale use of artificial intelligence.

Why is machine learning and artificial intelligence important in today's society?

One can easily argue that the so-called 4th industrial revolution has artificial intelligence at its heart. In particular, the latest advances in Machine learning, and in particular, in deep Learning, are dramatically transforming technology, since they enable much more accuracy in the devising of systems which are capable of accomplishing complex tasks. This is true if one thinks of all those systems devised for decision support, for complexity analysis tasks, for human-machine interactions or to construct intelligent agents.

All of this is happening, as particularly complex algorithms, based on recent discoveries in Mathematics, Computing and Robotics, are created/ discovered. All of this poses our societies in front of opportunities and challenges of spectacular magnitude.



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Dr. Omar El Dakkak is an Associate Professor of Mathematics at Sorbonne University Abu Dhabi and a Maître de Conférences at Paris Nanterre University. His main scientific contributions are in the fields of Discrete Probability and Empirical Processes, which are of fundamental relevance in the analysis of complex networks and in statistical learning. Presently, he is the Coordinator of the projects in Artificial Intelligence at Sorbonne University Abu Dhabi.