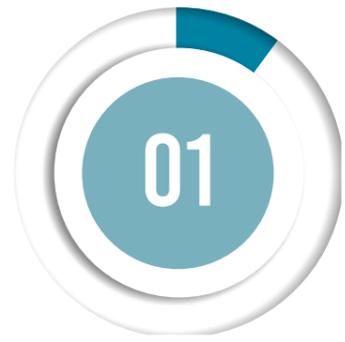


Academy of  
Continuing Education



# EXECUTIVE DIPLOMA IN **DATA SCIENCE, DEEP LEARNING, AND AI SOLUTIONS**



Data Preparation,  
Visualization, and  
Descriptive Statistics



Data Analysis



Data Management  
and Governance



Supervised  
Machine Learning



IoT, Cyber Security,  
and Blockchain



Deep  
Learning



Big Data Technologies



Unsupervised ML and  
Reinforcement Learning



Natural Language  
Processing and Robotics



Project Management  
and Innovation in AI

# EXECUTIVE DIPLOMA IN DATA SCIENCE, DEEP LEARNING, AND AI SOLUTIONS

## DESCRIPTION

This Executive Data Science, Deep Learning, and AI Solutions program is intended to expose participants to the best analytical practices of Data Science, Deep Learning, and AI with their related Big Data technologies.

This 15-month journey will guide participants through a complete roadmap to reach and master Data Visualization, Statistics, Data Analysis, Machine Learning, Deep Learning, AI solutions, and related Cybersecurity best practices and Big Data technologies.

To make things fully comprehensible, a panoply of case studies will guide participants into the whole analytical process until reaching, then allowing the mastering of Data Science, Deep Learning, and AI's most famous algorithms. Case studies that are from different industries will confirm the democratization of Data Science and AI in all fields.

All analytical methods and solutions are elaborated with step-by-step case studies with different examples to consolidate their practical implementation by participants. On top of an exhaustive 6,000 state-of-the-art slides updated over 15 years, and documentation supporting all topics, participants will have access to practice projects on **SAS**'s latest technologies as well as **Python** Data Science and AI codes.

## LEARNING OUTCOMES

By the end of this diploma, participants will be able to:

- Manipulate data for serious application in the era of Digital Transformation
- Relate Data Analysis with Machine Learning applications
- Understand how Deep Learning applies to AI
- Implement efficient and smart AI projects
- Compare the classic Data Management to Big Data technologies
- Explore web technologies and securities
- Innovate and manage an AI project
- Learn and practice all SAS technologies with Python codes.

## PREREQUISITES

None

## STARTING DATE

January 3, 2023

## TEACHING METHODOLOGY

The sessions of the program will be delivered online, allowing a complete interaction between participants and the instructor. Exceptional ones will be optional in person right after any fixed exam related to the preceding credit and at LAU premises. Participants will have to deliver projects over **SAS technologies** and **Python** at the end of each course.

## TARGET AUDIENCE

This Executive Diploma is primarily aimed at practitioners who aspire to become "acquainted" with the complete puzzle of the complementary Data Science and AI components, and how they can be applied coordinately to solve modern data and business issues and research problems. The program is specifically suited for persons with a strong will to enter the world of Data Science and AI or already involved in statistics, data analysis, computer science, marketing, CRM, research, manufacturing, quality control, app developers, IT analysts from sectors such as banks, insurance companies, retail, governments, manufacturers, healthcare, telecom, airlines, distributors, etc.

In brief, it is addressed to any person in a company who wants to "get connected" with the complete Data Science and AI process and its analytical solutions. And finally, it can be of great importance for Python practitioners who want to learn the scientific side of Data Science AI to implement them in their daily businesses.

## SCHEDULE AND DURATION

10 courses of 45h delivered through 3 sessions of 2.5h a week over 15 months, totaling 450h (+100h SAS e-learning) with a final project to deliver.

# DATA PREPARATION, VISUALIZATION, AND DESCRIPTIVE STATISTICS



## COURSE OVERVIEW

A visual tells a thousand times more than words and ... data! However, illustrations should be well selected according to the types of variables and researcher objectives. This credit goes through the use of all types of charts and their final structuring in an appealing dashboard. It compares all possibilities between the most common proprietary tools such as Excel, Power BI, and Tableau and mainly SAS, as well as open source tools such as Python and two of its carting libraries: Matplotlib and Seaborn.

However, it all starts with good data collection and/or selection. Doing that correctly necessitates a good comprehension of all data types and their multiple sources. Structuring that properly allows the ease of describing all the results with adequate and efficient descriptive statistic measures.

The first course highlights key points in designing a smart data collection process, sampling best approaches, and validating the quality of the information stored in analysis and their corresponding descriptive statistical KPIs.

## COURSE OBJECTIVE

This course will enable you to:

- Comprehend and plan the lifecycle of a good data analysis project
- Evaluate data quality for analysis and reporting
- Understand the difference between Big Data and Sampling results
- Explore all sampling methods and pitfalls of data collection
- Translate any business into a comprehensive database
- Learn all sorts of tables: counts/frequencies and percentages
- Illustrate any type of data smartly and efficiently with SAS, Excel, Power BI, and Tableau to Python
- Describe and interpret data basics with complete descriptive statistics
- Understand and interpret estimations based on samples' results

## CONTENT SNIPPETS

- The different types of Data Sources, Data Types, and Variables
- Sampling techniques: Probabilistic (Random, ...) and Non probabilistic (Quota, ...)
- Data analysis project best practices
- Evaluate data quality for analysis
- Histograms / Scatter Plots / ... 2D and 3D graphs / ... / Waterfall / ...
- Central and Scatter Tendency Measurements
- Central Limit Theorem
- Estimations: punctual and confidence intervals
- Projects on SAS, Power BI, and Python

# DATA ANALYSIS



## COURSE OVERVIEW

Primer for all Machine Learning solutions, data analytics is a must for kicking off a career in the world of data. One cannot claim to apply AI analytics without a deep knowledge of data analytics.

This course is designed to make participants have a clear and complete understanding of data structuring for efficient analysis, profiling different groups scientifically by analyzing data smartly and efficiently with all parametric statistical tests, as well as manipulating appropriately several technology tools now in the market.

Note that data scientists can be easily confronted with non-conform data when analyzing two or multiple groups statistically. In many fields, they are faced with tracking statistically the same group over several periods. And moreover, it is frequent to have non proper data for analysis. For both situations, all data analysis techniques should shift to the statistical science related to "dependent" samples as well as "non-parametric" tests, the alternatives of parametric ones.

On the other hand, what about defining sample size, the question that is frequently raised while designing an analytical project? Should we adopt the Big Data solution where all the data is accounted for? This course will also bring the answer to all those queries, their advantages, and disadvantages.

## COURSE OBJECTIVE

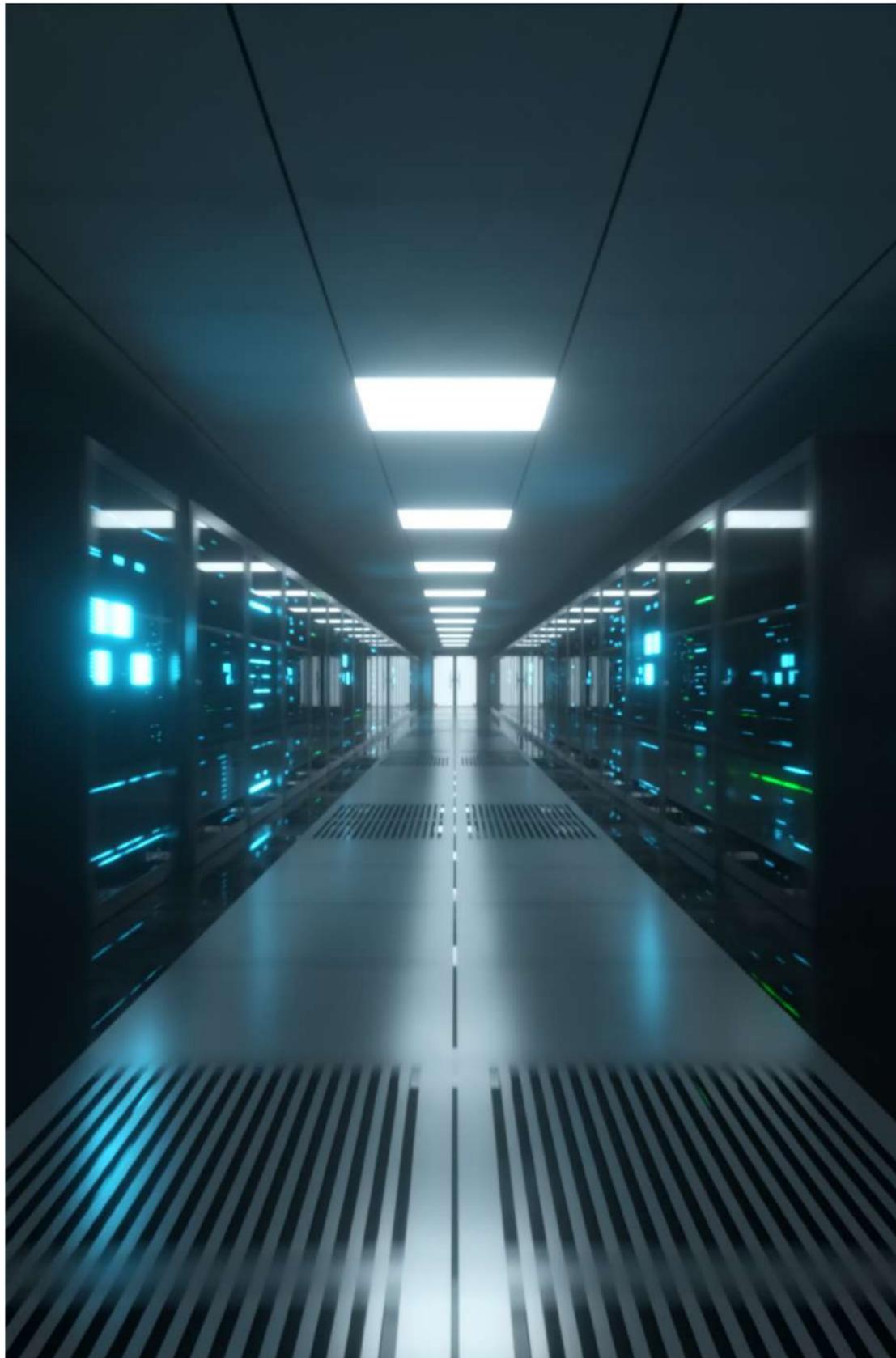
This course will enable you to:

- Understand the logic of hypothesis tests
- Differentiate between Prior and Posteriori errors
- Benchmark sample statistics to standard references.
- Differentiate between profiling and describing groups
- Sort out variables that profile groups
- Explore the complete story behind simple regression
- Distinguish the use of linear and non-linear regression methods
- Put all analytics in one smart chart ... only!
- Projects on SAS and Python

## CONTENT SNIPPETS

- Introduction to decision "Error"
- One Group statistical tests
- Two group statistical tests
- Multiple group statistical tests
- Mean pair comparisons methods
- Simple Linear Regression
- Simple Logistic regression
- Dependent samples vs. independent ones
- Non-parametric analytics with parametric ones
- Power analysis and sample size definition

# DATA MANAGEMENT AND GOVERNANCE



## COURSE OVERVIEW

All applications, data analysis solutions, and AI algorithms used in any business are getting highly dependent on seamless access to data, indispensable for efficient operation and functionality. With diverse data generated from disparate sources, data remains useless on its own. To control, unify and leverage all forms of data for efficient usages, companies need effective data governance and data management strategies.

While data governance establishes policies and procedures around data to ensure availability, usability, safety, storage and correct usability, data management is mainly the execution of the data governance framework, passing policies, and procedures that collect and store data for managerial more precise decision-making. This course covers all the practices of collecting, organizing, protecting, storing, and accessing an organization's data so it can be analyzed for business decisions regardless of size or industry.

## COURSE OBJECTIVE

This course will enable you to:

- Understand requirements of data assets
- Design a data architecture
- Understand database design concepts
- Collect, process, validate, and store data
- Manage databases and data warehouses
- Plan short and long-term database projects
- Protect and secure data
- Ensure data privacy
- Govern data accessibility

## CONTENT SNIPPETS

- The four layers of Business Intelligence
- Data architecture
- The five types of databases
- Data Integration, Warehouse, and Virtualization
- Data quality and security
- Data Quality
- Data integration and interoperability
- Data modeling and design
- Master and reference data management
- Metadata Management
- SQL and NoSQL Databases
- Graph Databases

# SUPERVISED MACHINE LEARNING



## COURSE OVERVIEW

The backbone of AI solutions related to decision making, "Supervised" ML models are becoming accessible to any practitioner due to the enormous and quick progress of technologies. Mastering the most important predictive models has become easily attainable, especially with the improvement of automation tools. This course offers a complete overview of "supervised" Machine Learning algorithms and their role in the enhancement of predictions in most industries. To ensure the practical side, it also explores models under different technologies (SAS, STATISTICA, and PYTHON), allowing students to become not only professional practitioners but expert consultants within their job, by evaluating and choosing the appropriate solution with an adequate technical package.

## COURSE OBJECTIVE

This course will enable you to:

- Explore the rise of AI with IoT and technology capacities
- "Learn" the true meaning of Machine Learning (ML)
- Cross the bridge linking Data Analysis to Machine Learning
- Improve prediction by testing different ML models
- Fine tune classifications with models using more than a variable at a time
- Compare models with accuracy measures
- Comprehend the utility of all cross-validation techniques
- Projects on SAS, Power BI, and Python

## CONTENT SNIPPETS

- Multiple Linear Regression
- Multiple Logistic Regression
- Ancova
- Lasso, Ridge, and Elastic Net Regression
- Discriminant Analysis
- Naïve Bayes
- Decision Trees
- K Nearest Neighbors
- Forecasting
- Performance Indicators
- DevOps vs. MLOps

# IOT, CYBER SECURITY, AND BLOCKCHAIN



## COURSE OVERVIEW

This course introduces the Cloud infrastructure that favored the rise of the IoT which turned “small data” issued by connected devices into “Big Data”. It explores the different components and technologies that define IoT applications architecture and discusses the opportunities brought by the IoT in different application domains. On the other hand, it dives into cybersecurity and Blockchain. It explores all science and technologies of data security, information security, risk management, systems security management, penetration testing, network security, and the essence of system cybersecurity engineering, as well as techniques of hashing concepts and cryptocurrencies.

## COURSE OBJECTIVE

This course will enable you to:

### IoT

- Comprehend the network of physical devices
- Learn how “everything” connects to the internet
- Integrate the physical “things” into smart AI systems
- Translate that outside world, via the internet, into automated data for analysis

### Cybersecurity and Blockchain

- Protect their data against the latest cyber security threats
- Harden their environment through robust security frameworks
- Detect and investigate malicious behavior in the BI system and environment
- Evaluate data security, analyze potential risks and remediate
- Simulate real case attacks according to the latest penetration testing methodologies

## CONTENT SNIPPETS

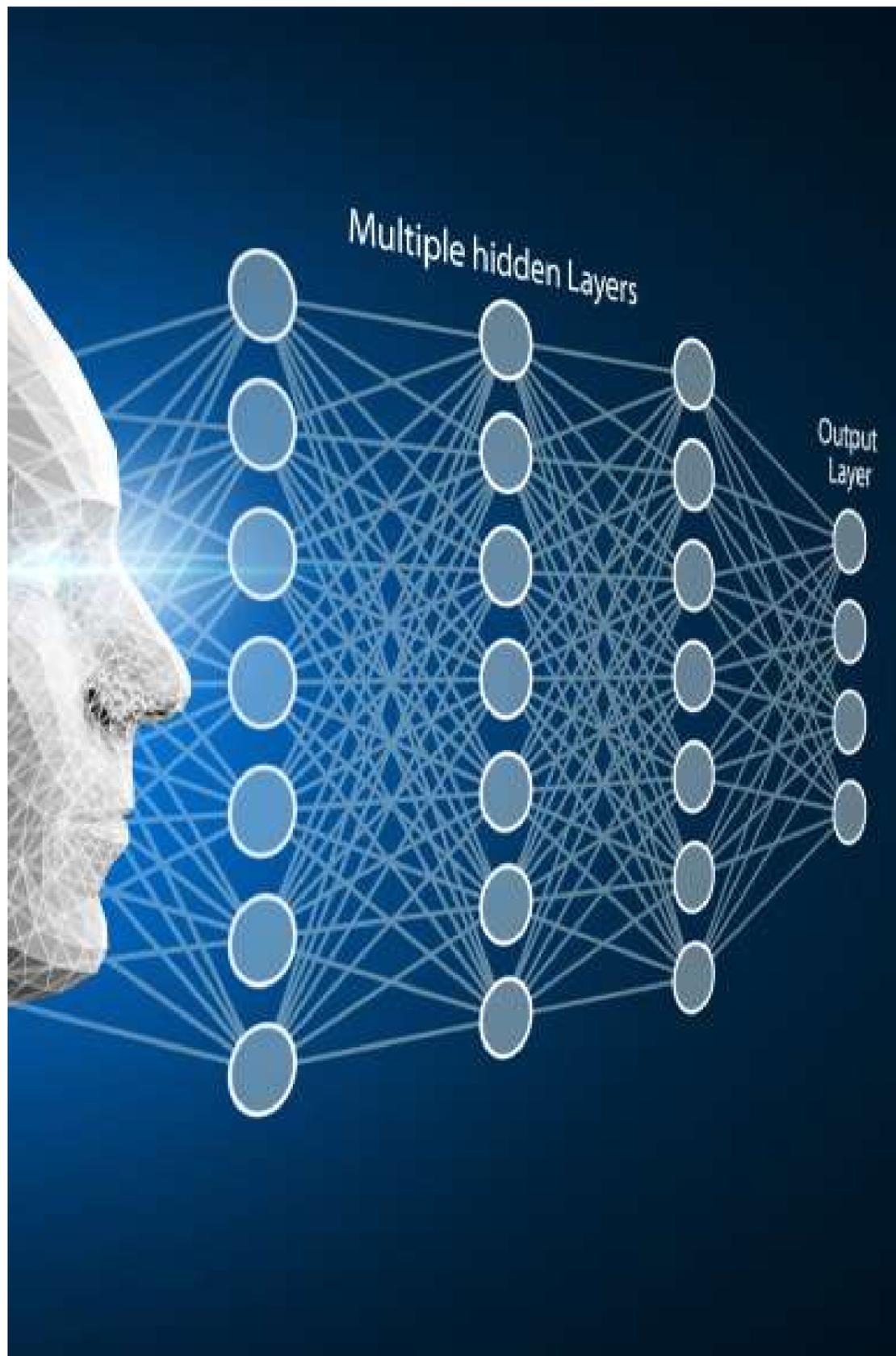
### IoT

- IoT overview and main concepts
- Main architecture concepts and design constraints
- Standards and protocols
- IoT evolutions
- IaaS: reducing operational and infrastructure costs
- Virtualization and containerization
- IoT communication protocols
- IoT market segments and value

### Cybersecurity and Blockchain

- General Information Security - Attack anatomy, cycles, and types
- Systems & Network security: Data in transit security / Operating systems attacks / Remediation
- App Security: IEEE and OWASP standards / App servers hardening / Secure code development
- DB Security: Attack surfaces / DB permissions and connections / IoT Security
- Encryption and Hashing Concepts
- Crypto Currencies / Miners
- Ransomware and Cryptojackers

# DEEP LEARNING



## COURSE OVERVIEW

Many factors contributed to the rise of AI and launched the 4th technological revolution which includes essentially the transformation of images, text, and audio into information. However, one main science lies behind all that: Deep Learning. The latter represents a wide range of complex architectures, feed-forward focused or recurrent networks that consider previous data as their inputs, and which can build solutions for a variety of problems: Self-driven cars, bots, and many others. In brief, Deep Learning facilitated automation in all industries such as healthcare, security, manufacturing, engineering, education, oil industry, marketing, etc. This course will go over the details of the main algorithms behind this breakthrough in technology that made AI closer to reality.

## COURSE OBJECTIVE

This course will enable you to:

- Learn mathematics behind Deep Learning
- Explore the logic of optimization with the Gradient Descent
- Dissect components of neural networks
- Adjust hyperparameters of algorithms to optimize cost functions
- Explore the architecture of main deep learning networks
- Improve accuracy of Classification and Estimation
- Establish knowledge in image classification, face recognition, text prediction, and object detection
- Apply deep learning algorithms for solving new challenging problems

## CONTENT SNIPPETS

- Essentials of Algebra and Calculus
- Gradient Descent concept
- Perceptron Algorithm
- Hinge Loss
- Error Measurements
- Support Vector Machines
- Feed Forward Neural Network
- Recurrent Neural Network (RNN)
- Long – Short Term Memory (LSTM)
- Convolutional Neural Network (CNN)
- Generative Adversarial Network (GAN)

# BIG DATA TECHNOLOGIES



## COURSE OVERVIEW

Big Data is the technology surrounding all our businesses today. Its technologies can be defined as a Software-Utility that is designed to Analyze, Process, and Extract information from complex and large data sets that Traditional Data Processing Software could never deal with. Its complexity resides in the disparity of protocols and connectivity between the dozens of different technologies. However, the logic is not different from traditional data management systems. This course will explain the challenges of Big Data technologies that are filling the gaps of traditional technologies, discuss the main tasks in capturing, storing, analyzing, sharing, and querying data and compare traditional structured data with new, large, complex, and unstructured ones. It will also go through how to design a Big Data implementation plan, and create strategies for data-driven solutions with analytics-focused architectural diagrams.

## COURSE OBJECTIVE

This course will enable you to:

- Manage the 5 steps of BD processing:
  - Data sources: ERP, CRM, OLAP, ...
  - Data acquisition: Storm, Spark, ...
  - Data storage: HDFS, Cassandra, ...
  - Data Analysis: Spark, Cloudera, ...
  - Reporting and visualization with SAS and Azure data bricks
- Implement and plan a Big Data project
- Practice designing a Big Data architecture diagram: structure and technologies
- Hands-on experience with popular big data storage and compute systems
- Design a relevant architecture diagram for analytics tasks

## CONTENT SNIPPETS

- Key Big Data Concepts and Data Types: Text, audio, images
- Big Data Architectures and Paradigms
  - The Hadoop Ecosystem
  - MPP vs Distributed In-memory applications
- How To Access Big Data?
- Big Data ETL
- Big Data Compute Technologies
  - Hadoop / MapReduce and beyond
  - Distributed Compute / High-Performance Clusters
  - Spark / Streaming: Storm, Spark structured streaming
  - Other big data technologies: Kafka, etc.
- Bridging between data projects and organizational needs
- Big data case studies:
  - Netflix, LinkedIn, Facebook, Google, Orbitz, Dell, others.
- Best practices in project design
- Cloud applications with SAS Viya and Azure – Databricks

# UNSUPERVISED ML AND REINFORCEMENT LEARNING



## COURSE OVERVIEW

It is very common to have multi-variable data sets describing complex topics. But how can we extract all the hidden patterns from within such complex data sets? Reducing with PCA the number of variables into simple "maps", becomes essential to highlight all those invisible relations, facilitating the correct actions to take. This course reveals the difference between scientific "clustering" and simple common sense "filtering". This empowers the definition of market niches, consolidated with data analysis profiling techniques. In the end, it will cover all types of illustrations that reveal associations between the components of multiple variables for efficient tracking of patterns evolution.

The last credit of the course covers the 3rd section of machine learning, which is Reinforcement Learning, related mainly to the gaming theory of an intelligent agent, expected to give a useful action when fed with observations. The learning process through trial-and-error encounters with a dynamic environment makes it closely similar to how humans and animals learn their behavior in their own environment.

## COURSE OBJECTIVE

This course will enable you to:

### Unsupervised Machine learning

- Understand what exploratory analysis is
- Discover the hidden patterns within data sets
- Master all "pattern finding" algorithms used in AI applications
- Map data sets of multiple variables in simple charts
- Master differences between all possible "look-alike" maps
- Evaluate the quality of reduced multi-dimensionality solutions
- Differentiate between clustering and ... filtering
- Run professional segmentation with smart clustering

### Reinforcement learning

- Relate RL to other ML techniques
- Formulate RL with the Environment, State, Reward, Policy, and Value

- Train models to make a sequence of decisions
- Maximize reward with optimal behavior in the environment

## CONTENT SNIPPETS

### Unsupervised Machine learning

- Principal Component Analysis vs. t-NSE
- Multi-Dimensional Scaling
- Hierarchical Clustering vs. K - Means and K Medoids
- Gaussian Mixture Models
- Association Rule and Correspondence Analysis
- Recommender System

### Reinforcement learning

- Bellman Equations
- Exploration vs Exploitation
- Policy and Value Functions
- Markov Decision Process
- Q Learning

# NATURAL LANGUAGE PROCESSING AND ROBOTICS



## COURSE OVERVIEW

NLPs are part of the AI that processes text to obtain the right information from a human's natural language perspective. It is how computer coding process text or languages to extract needed information. They are algorithms that enable computers to derive meaning from humans' natural language. In other terms, they try to interpret any text as any human would do! This course covers all the pre-processing steps of text preparation and their related coding.

The 3<sup>rd</sup> credit covers robotics and mainly RPAs, the technology that operates 24 hours a day by automating repeatable business tasks in order to allow employees to use their skills and knowledge to work on more complex ones requiring intuition for complex problem-solving. This part of the course teaches how RPA is used to automate numerous supply chain processes, including data entry, predictive maintenance, and after-sales service support in multiple types of industries such as healthcare, telecommunication, banking, and many more.

## COURSE OBJECTIVE

This course will enable you to:

### Natural Language Processing (NLP)

- Prepare data and vectorize it
- Run sentiment analysis and topic classification
- Build a word embedding and text generation models
- Understand multinomial & gaussian generative models
- Explore all the components of a successful chatbot

### Robotic Process Automation

- Overview of robots in today's businesses
- Understand the what and why of an RPA project
- Identify processes suitable for RPA
- Find out how RPA can increase accuracy while keeping consistency
- Comprehend challenges & risks during the implementation of an RPA solution
- Design and workflow that produces efficient data for analysis
- Identify key considerations while mapping a process into an RPA solution

## CONTENT SNIPPETS

### NLPs

- Tokenizing sentences and Stop Words dictionary
- Stemming and Lemmatizing words
- Parts of Speech / Name Entity Recognition
- Bag of Words and TF-IDF
- Word - Term matrix
- Multinomial Naive Bayes model
- Latent Dirichlet Allocation (LDA) model
- word2vec: CBOW and SKIPGRAM methods

### Robotic Process Automation

- Mapping a process and allocating appropriate data
- Steps in automating processes
- Business value of RPA
- Effect of automation on companies and employees
- RPA with UiPath Studio

# PROJECT MANAGEMENT AND INNOVATION IN AI



## COURSE OVERVIEW

Data scientists and AI innovators cannot succeed if they lack the prerequisite rules for managing successfully their ideas. Project management becomes a must in bringing AI solutions into a successful project by coordinating the multi-tasks related to PMP's integration, time management, risk management, and many other processes.

But to overcome all the above challenges, solve problems, achieve goals, come up with new products, services, and processes, or even improve daily work, innovation has become a required skill to survive and grow. This second credit of this course offers a hands-on experience where participants will learn and apply different innovation processes and tools applied on real cases picked from their professional practical work in order to lead through strategic innovation.

## COURSE OBJECTIVE

This course will enable you to:

### PMP for AI projects

- Prepare data and vectorize it
- Run sentiment analysis and topic classification
- Build a word embedding and text generation models
- Understand multinomial & gaussian generative models
- Explore all the components of a successful chatbot

### Creativity and Innovation

- Overcome challenges, solve problems and achieve strategic goals through innovation
- Develop innovative products and services, processes, and business models
- Allocate convenient projects and tasks according to team skills and creative capabilities
- Measure and evaluate different types of innovation
- Develop and implement adequate innovation software to facilitate submitting ideas
- Learn how to manage a diversified innovation portfolio
- Anticipate the next Tsunami in your industry and make sure to ride the wave

- Differentiate between Artificial Intelligence, Supreme Intelligence, and innovation

## CONTENT SNIPPETS

### PMP for AI projects

- Project Management Essentials
- Integration / Scope
- Time / Cost
- Quality / Human Resources
- Communication / Risk
- Procurement / Stakeholders methods

### Creativity and Innovation

- The whole-brained or diverse thinkers
- Key must-take steps to accelerate innovation
- Creative techniques to accelerate innovation
- Steps after new ideas generation.
- Technologies to empower people.
- Innovation processes, tools and techniques (Innovators Process and Tool application ®)
- AI & Robotics Vs. Creativity and Innovation
- Risk Matrix and Risk appetite
- Innovation measurement and the Global Innovation Indexes
- RPA with UiPath Studio





**Walid Semaan**

**Founder and CEO**

Statistics, Data Analysis, Machine Learning, Deep Learning and NLPs Expert

Walid Semaan is the founder and president of Matrix TRC Data Science and AI Academy (partnering with SAS international). He graduated in engineering from Ecole Supérieure d'Ingénieurs à Beyrouth and holds a degree in finance and marketing from the Ecole Supérieure de Commerce de Paris (ESCP) and an MBA from the University Paris-Dauphine-Sorbonne in Paris. He also holds from Massachusetts Institute of Technology (MIT), three verified certificates:

["Data Science and Machine Learning"](#)

["Machine Learning with Python: From Linear Models to Deep Learning"](#)

["Artificial Intelligence: Implications for Business Strategy"](#)

He is the creator and architect of the automated analytical Artificial Intelligence behind 'Triple One Analytics' winner of the Best Innovative ICT Project at the 2011 Arab Golden Chip Award. Walid continuously updates his training and consulting services delivered worldwide, related to Research, Data Visualization, Data Analysis, Machine Learning, Deep Learning, NLPs, Forecasting, and Statistical Quality Control. Walid joined lately Fleming Events - Europe as an expert trainer in Data Science & AI and is an expert certified trainer in the Middle East for SAS, MEIRC / Training PLUS, and Formatech.

In parallel, he holds thousands of hours teaching master's programs at Saint Joseph University, assisting Ph.D. students in their advanced analytics and machine learning programs, and training local and international companies, to name a few from hundreds: Central Bank of Lebanon (Lebanon), PWC (Dubai), SCAD (Abu Dhabi), OXY Petroleum (Oman), Government Statistics (Ajman - UAE), IPSOS (Lebanon), Dallah Hospital (KSA), Smart Dubai (Dubai), DarkMatter (Abu Dhabi), Indevco Industries (Lebanon and Egypt), Sanofi - Merck Group (Amsterdam), Boehringer Ingelheim (Singapore), Ministry of Health (KSA) and much many more.



**Dr. Anthony Franklin**

**Advisory Board**

Big Data Expert

Anthony is a former American football team captain who is now a business analytics leader and big data advisor. He received his doctorate degree from North Carolina State University, as he worked at the prestigious Institute for Advanced Analytics program. Anthony enjoys inventing products and finding ways to translate business principles to create opportunities for underrepresented populations. He is a fearless strategist that leverages data-driven insights to develop channel partner strategies and improve the efficiency of sales and marketing operations. He is currently an analytics product leader at Red Hat and a co-founder of an analytics-based startup called Fanalytical. A motivating leader committed to designing team cultures based on excellence, diversity, and results.



**Grégoire de Lassence**  
**Advisory Board**  
 SAS Expert

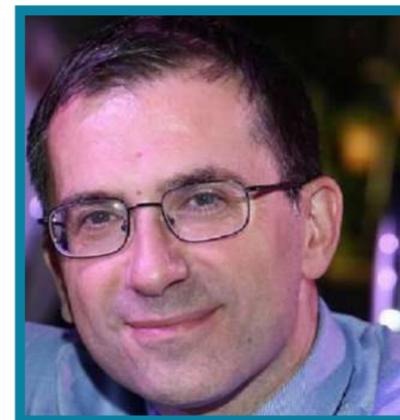
Grégoire de Lassence is Head of pedagogy and research at SAS France since 2002. The main part of his job is teaching in master's degree mainly, more than 100 full days per year.

- Universités : Aix-Marseille (Luminy & IAE d'Aix), Bretagne Sud (IUT de Vannes), Cheikh-Anta-Diop (Dakar), Clermont 2, Lille 1 (Master SIAD), Université de Lyon 1 (MIAG), Paris 2 – Assas (Master ISF), Paris 6 – Jussieu, Paris 9 - Dauphine (Master Informatique décisionnelle - formation initiale et en alternance (ex MIAGE), Master 204 (Marketing), Master 202, Master MEM, Master ISF), Paris 12 – Créteil (Master Maserati), Paris 13 (Master EID), Toulouse 1 (Master SIAD), Université de Technologie de Compiègne, Université Paris-Saclay, ...
- Grandes Ecoles : CNAM, CentraleSupélec, EFREI, CY-Tech (ex EISTI), EM Lyon, EPITA, ESCA Casablanca, ESSEC (MSc in Data Sciences & Business Analytics ESSEC – CentraleSupélec), INSA de Lyon, INSEAD, ISC, ISIMA, ISUP, Néoma, Grenoble EM, HEC, HEM (Casablanca), Polytech Lyon, Science Po Rennes, SKEMA (Mastère spécialisé MDCE), IMT (ex Telecom Bretagne - Mastère spécialisé IADBA), Telecom Paris, Toulouse Business Scholl ...

He is also a consultant: Architecture, Administration, and implementation of Business Analytics Platform, pre-sales consulting, customer support, and trainer; at SAS

### Skills

- Business Analytics Platform SAS, multi-platform Installation, Grid, ETL, storage, MPI, Reporting, Statistics, Machine Learning, Forecasting, Deep Learning, Operational Research, Text Mining
- Product expert: SAS Foundation, SAS Data Integration Studio, SAS Management Console, SAS Enterprise Miner, SAS Viya, SAS Visual Analytics, SAS Model Studio



**Dr. Karim Saikali**  
 IoT Expert

Karim earned a PhD degree in Software Engineering and is passionate about Service Oriented Architecture, Cloud Computing & Software methodology. He has more than 20 years of experience in Information Technologies, assisting large and smaller enterprises in their Digital Transformation: from automating business processes, modernizing Information Systems, to designing scalable cloud-based architectures, and for the past 7 years, leading cross-functional teams in the successful implementation of IoT solutions. Karim has rigorous academic experience and has been teaching at different universities for more than ten years, an enjoyable way for him to share his experience with others.



**Elie Mezher**  
Cybersecurity Expert

### Background

Elie is the CTO of Potech Consulting. He graduated with an Engineering degree from the Lebanese University (ULFG2-Roumieh) and with a Masters degree specialized in Cyber Security from ESIB-USJ. He has over 10 years of experience in information system security consultancy and evaluation; strong technical expertise in penetration testing and digital forensics.

Elie is a Certified Ethical Hacker and a specialized Cyber Security Instructor at numerous academic and professional institutions:

- USJ (Saint Joseph University) – Beirut – Digital Forensics, Ethical Hacking, Unix Security, AI in Cybersecurity
- Arab Open University – Mena – Cryptography, Ethical Hacking
- M2i – France – Web and Mobile Security
- Fitec – France – Ethical Hacking and Data Protection

Elie enriched and participated in numerous white papers published by Potech Labs, UL, and USJ relevant to Malware Analysis, Darkweb Mapping, etc.

### Experience

Throughout his career Elie executed and handled a wide spectrum of cyber security projects: Internal & external penetration testing, Web application penetration testing, Mobile application penetration testing, Application hardening, and secure development, Exploit development & analysis, Data Center Security and Consultancy, Digital Forensics, Source code review, Database servers and system hardening, Customized training, Information security awareness sessions, Secure network design and deployment. He has executed numerous missions in the information security field for large networks in several countries such as Lebanon, France, UAE, Jordan, Qatar, Nigeria, Egypt, UK, Cyprus, KSA etc. He was part of several public talks:

- Digital Risk Protection – ISACA 2021
- 2<sup>nd</sup> Annual Gulf Congress on Cyber Security- Threat Intelligence and Digital Foot Print – UAE 2020
- Cybercrime and AML Forum Lebanon – Union of Arab banks, September 2018
- Cybercrime and AML Forum TUNIS – Union of Arab banks, Central Bank of Tunis, April 2018
- Cybercrime Forum Jordan – Union of Arab banks, Central Bank of Jordan, February 2018
- Cryptocurrencies Cryptominers and Cryptojacking - ISACA Lebanon, July 2018
- IOT Security and Myths - ISACA Lebanon.



**Maher Mezher**  
Innovation Expert

Maher is regarded as one of the top experts in innovation & leadership, his ideas have been widely used throughout the world. He has launched the Fertility Loan, the first of its kind, gaining international recognition as the most creative and innovative in its products. Consequently, he spread worldwide recognition after being interviewed by more than 160 media stations like CNN, BBC, Reuters, Figaro, M6, RUSSIA Today, and many others.

Maher is the Inventor of the Innovators Tool® the first Innovation App built on sound effects, 3D animated images, dynamic quotes, sonic & strategic tailored questions that guides innovators to transform their creative ideas into innovations. He is as well the inventor of the Innovators Process® the newly designed Innovation Process Patented in 158 countries, Maher is the inventor of the Become An INNOVATOR® Methodology leading to unprecedented growth in employee engagement and greater business profitability. He is the founder of Innovators League a leading Innovation consulting & training firm. He has been selected as Top 20 Asian Entrepreneurs in "Greater Than Success" A Book Published by Partridge part of the British publishing house Penguin.

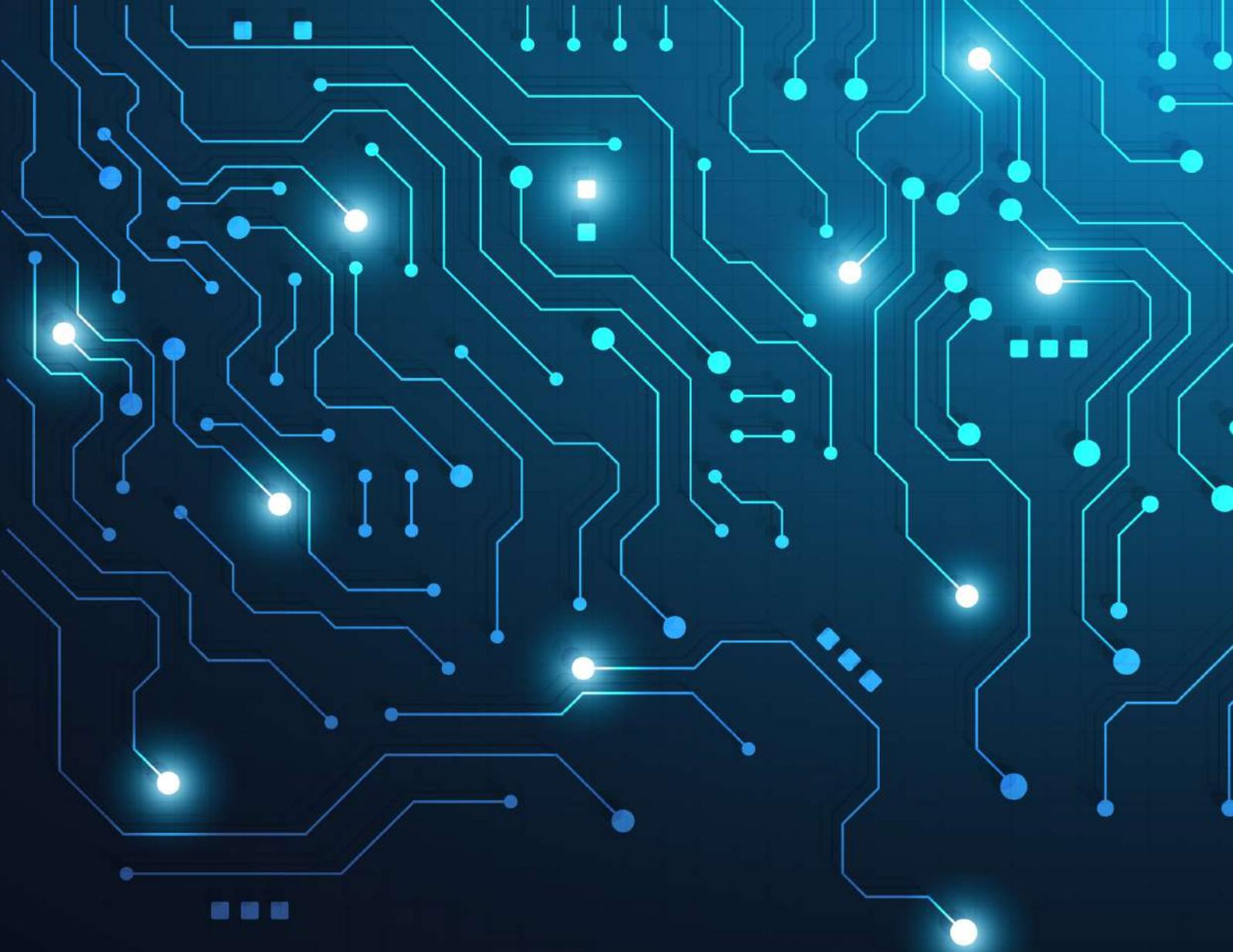
Maher is a sought – after Innovation keynote speaker who presented at Harvard Club New York-USA, Utah State University-USA, Prague, Rome, London, Oslo-Norway, Stromstad-Sweeden, Lisbon-Portugal, Turkey, Jordan, Saudi Arabia, Dubai, Qatar, Kuwait, Muscat-Oman & several other countries delivering state-of-the art interactive keynotes.

He is a pioneer in the field of innovation as he launched 3 innovative Retail Banking products, which were worth being included as case studies in Harvard's Business Review and Professor Philip Kotler's "Principles of Marketing", a textbook that will inspire future marketers during their university studies.

As one of today's top innovators & to further reflect upon his known expertise in the field of innovation, Maher was selected to be a jury member in the Ideaz Prize TV show broadcasted on MTV Lebanon, a program that encourages young entrepreneurs to kick off their business start-ups.

Maher occupied an academic role as a lecturer at Saint-Joseph University, an instructor at the Bankers Academy in New York, a Chartered Financial Marketer "ChFM" & a lead trainer at the American Academy of Financial Management, Certified Innovation Trainer by G. Haman - USA. He has advised & trained in different countries a substantial number of professionals & organizations in the field of Innovation, Marketing & Leadership.

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