Professional Master's Degree
Visual Analytics and Big Data

tech technological university

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Professional Master's Degree
Visual Analytics and Big Data

- » Modality: **online**
- » Duration: **12 months**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/pk/information-technology/professional-master-degree/master-visual-analytics-big-data**

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01
Introduction

This Program in Visual Analytics and Big Data will enable you to enter the world of Big Data as a professional capable of handling rational analysis, supported by a visual and interactive interface. A process that will allow you to acquire the knowledge you need to participate in the capture and storage of information, the analysis of data mining or the visualization of information. A program that will allow you to learn the most relevant innovations in automatic and visual data analysis with the exceptional quality of TECH, the largest university in the online teaching market.

Get qualified with the best teachers, the most innovative educational system and the security and solvency of TECH Technological University"

Over the years, Big Data has become indispensable in our lives. The majority of the population uses electronic devices or other technologies that are constantly collecting data. This information is of great value to companies as it allows them to use these reports to improve, the process of creating new products or address potential business deficiencies.

Nowadays, the collection and storage of the trillions of data produced every day has improved considerably. However, there are significant limitations in human beings' capacity to analyze this information and, therefore, tools or automatic methods are required to facilitate this task.

The use of Visual Analytics techniques makes it possible to improve decision making by combining human knowledge with the enormous data processing and storage capacity of computers, in order to find solutions to complex problems.

In response to the growing need for professionals specialized in Visual Analytics and Big Data, this prestigious program was created to provide participants with a strategic vision of the application of new data analysis technologies to the business world, for the development of innovative services based on analyzed information.

Throughout these months of the course, students will get a complete overview of the latest developments in data analytics that will take them through the most intensive educational path and prepare them in current star profiles delving into booming areas of study such as:

- Data Analysis Techniques
- Data Capture and Storage
- Artificial Intelligence Techniques
- Engineering for Mass Parallel Data Processing
- Visualization Techniques and Tools

A unique opportunity to specialize in a growing sector and stand out as a successful professional.

This **Professional Master's Degree in Visual Analytics and Big Data** contains the most complete and up-to-date program on the market. The most important features include:

- Practical case studies presented by experts
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

Apply the latest techniques in Visual Analytics to data work by harnessing the enormous capacity that arises from the combination of human knowledge and the storage power of computers"

" *You will have innovative educational materials and resources that will facilitate the learning process and the retention of the content learned for a longer period of time"*

A highly comprehensive program, created with the objective of delivering the highest quality education, raising our students to the highest level of proficiency.

A full refresher course that will provide you with the working skills of a data analysis specialist.

Its teaching staff includes professionals from the sector who bring their work experience to this program, in addition to recognized specialists from leading societies and universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic course. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

The objectives of this Professional Master's Degree have been established based on realistic and necessary goals for professionals in the sector. Students will be able to progressively verify their learning and progress in the mastery of the contents so that, at the end of the course, they will have achieved professional growth.

Realistic, achievable and high-impact goals for your professional training"

General Objectives

- Offer students immersion in the new social and technological context in which Visual Analytics tools are framed. This high-complexity content and uncertainty is increasingly supported by decision making based on data analysis and visualization

- Obtain and enhance fact-based critical thinking for strategic decision making

- Understand the value of the changing environment and facilitate students' connection to entrepreneurship and new knowmad ways of working

- Analyze the data produced and draw conclusions using statistical tools to make the most appropriate decisions at all times

- Learn the introductory concepts of statistics; statistical reasoning; representing relationships between different variables, among others

- Acquire in-depth knowledge of the principles of probability that are the basis for inferential statistics, which will allow us to contrast conjectures (hypothesis testing) about what a given population is like

- Understand information sources and the value they bring to the creation of new innovative business models

- Know and use statistical tools to solve problems in the Big Data field

- Know how the combination of all the data flowing through the Internet can be combined in order to define new strategies applicable to different industrial, business, financial sectors, etc., within different fields, such as energy, health, economy or communication

- Learn the different techniques for data analysis and exploitation and visualization and interaction techniques, all closely linked to the role of Data Scientists and their contribution to the anticipation and vision for the execution of innovation processes that allow for efficient changes in organizations

- Assimilate concepts, techniques, methodologies and knowledge of languages that will be useful to apply in big data mining

- Further study Artificial Intelligence algorithms and techniques such as decision trees, classification and association rules, neural networks or Deep Learning

- Apply Data Mining tools to solve learning problems, interpreting the results obtained, as well as the ability to design an intelligent system capable of inferring new knowledge

- Understand databases, from traditional to unstructured, where data requiring other types of processing, such as audio or video streams, will be stored

- Learn about the importance of having cloud computing for processing large volumes of data and how all this Big Data can be ingested into tools that allow us to obtain and infer patterns in seemingly unrelated data

- Delve into the Hadoop framework and its file system HDFS (Hadoop Distributed File System), which provides tools and techniques for distributed storage and processing of large amounts of data

- Know how to apply tools for parallel processing: MapReduce, devised by Google in 2004, or Spark, now under the auspice of the Apache Software Foundation

- Understand how high-performance, low-latency platforms work for real-time manipulation of data sources that need to respond to service demands operating in the millisecond range

- Offer students a 360-degree view of management, providing them with a balance between technical and managerial preparation

- Enhance management and leadership skills to successfully manage teams and projects

- The student will become a resilient leader through the management of emotions, conflict and crisis, fundamental skills in the current context and others oriented to decision making, negotiation and change management

- Acquire the skills for strategic project management through the contribution of best practices collected under the PMI, methodologies such as Kimball or a unique methodology in the world: SQuID, developed by a leading Spanish company in Big Data

- Understand the legal aspects related to user privacy and their right to protect their data, aspects to be complied with by any system that makes effective use of third-party data

- Understand the need for security in data storage, management and access along with the pillars of information security: integrity, confidentiality, availability and traceability

- Study, in-depth, the ethics of data and its possible uses in today's societies

- Acquire basic knowledge to obtain a vision on the relevance of Marketing in the strategy of any company and how the effective management of data analysis techniques contributes to the definition of more accurate strategies reaching the market

- Learn to accurately define the consumer by learning specific skills and finding and analyzing the necessary information

- Obtain information based on data from web searches, in order to define a strategy based on realities, i.e. existing data

- Know how to differentiate the offer, thus providing the ability to think in the same way as the consumer, detecting the attributes they want

- Expand knowledge on the use of open sources to combine with other existing data within the organization

- Learn about a case study of application in the world of Big Data to Marketing with MasterLead, which provides a tool to assess the probability of a lead becoming a customer

- Learn the graphical representation of data by means of statistics, maps, diagrams or schemes with the objective of making data visible to a given audience, but above all to bring out the relevant information hidden in the selected data set

- Be able to practice storytelling with data to understand how to represent data and its visual representations

- Understand Keim's visual analytics process, which shows how to apply Visual Analytics techniques to the business world

- Understand different types of reports: strategic, operational and management, as well as the types of charts and their function

- Learn how to use IBM's Many Eyes tool that allows you to create different types of data visualizations such as infographics, maps, word count visualization, bar charts, etc.

- Obtain capabilities in three popular libraries such as Google Charts, JQuery plug-ins for visualizations and Data-Driven Organizations, also known as D3, one of the most powerful libraries currently on the market

- Gain in-depth knowledge of another set of tools that are widely used in various industries such as Matlab, Tableau, SAS Visual Analytics or Microsoft Power BI, where you can explain the history of a dataset through visualizations

Specific Objectives

Module 1. Visual Analytics in the Social and Technological Context
- Understand the new social, economic and business dynamics of the world
- Understand the value of new environments as an opportunity for entrepreneurship
- Develop analytical skills in changing environments
- Identify and focus on new scenarios and their opportunities
- Develop analytical and critical thinking for strategic decision making
- Understand new profiles in the current context in order to define strategies adapted to them
- Generate differential value in our ability to make decisions
- Understand the new business environment in order to address transformation processes in organizations

Module 2. Data Analysis and Interpretation
- Know the different theories for data analysis and interpretation
- Identify the most common descriptors for a dataset
- Understand and evaluate the applicability of different descriptors to an existing dataset
- Know how to carry out hypothesis testing and its applicability to the world of data analysis
- Learn how to interpret the different existing regression techniques

Module 3. Data Analysis Techniques and AI

- Understand the different techniques for data analysis
- Design joint strategies of statistical and artificial intelligence techniques for the development of descriptive and predictive systems applied to the reality of a dataset
- Understand the operation and characteristics of common mass data processing techniques
- Identify techniques oriented to statistical analysis, artificial intelligence and mass data processing

Module 4. Data Analysis Tools

- Understand the environments most used by Data Scientists
- Know how to process data in different formats from different sources
- Learn from the need to guarantee the veracity of the data as a prior step to its processing
- Identify new technologies as pedagogical tools in the communication of the different business realities
- Know the latest trends in the creation of intelligent entities based on Deep learning and neural networks

Module 5. Database Management and Data Parallelization Systems

- Know the artificial intelligence techniques applicable for massively parallelized data processing on a given data set and according to previously defined requirements
- Know how to manage large volumes of data in a distributed manner
- Understand the operation and characteristics of common mass data processing techniques
- Identify commercial and open software tools oriented to statistical analysis, artificial intelligence and mass data processing

Module 6. Data-Driven Soft Skills in Strategic Management in Visual Analytics

- Know and develop the Drive profile applied to mass data environments
- Understand what and why advanced management skills generate differential value in data scientists
- Develop strategic communication and presentation techniques
- Understand the role of emotional intelligence in the context of Visual Analytics
- Identify key concepts in Agile team management
- Develop and leverage digital talent in data-driven organizations
- Develop emotional management skills as a key to performance-focused organizations

Module 7. Strategic Management of Visual Analytics and Big Data Projects

- Know the best practices in PMI applied to the world of Big Data
- Learn Kimbal methodology
- Know the SQuID methodology and its applicability in the development of projects with large volumes of data
- Identify the legal issues of application related to the capture, storage and use of user data
- Know how privacy can be provided in Big Data
- Anticipate ethical risks and benefits derived from the application of big data techniques that may occur in real situations

Module 8. Client Analysis. Applying Data Intelligence to Marketing

- Know the different types of marketing and how they are applied in organizations and their influence on business strategies
- Be able to design a central intelligence system (CRM) for decision support based on data analysis and visualization, and focused on the company's own context
- Provide an introduction to the Internet as a massive source of real data based on user searches that can be utilized for decision making
- Analyze the technologies underlying the various web systems
- Develop open source intelligence solutions, exploiting available data sources
- Learn about application of data to improve marketing and sales in business organizations

Module 9. Interactive Visualization of Data

- Understand how patterns found in a data set can be made visible in order to generate a common interpretation of the underlying reality
- Understand the scalability of individual representations
- Understand the difference between Visual Analytics and information visualization
- Understand the process of Keim's visual analysis
- Evaluate the different data visualization methods applicable depending on the information to be conveyed

Module 10. Visualization Tools

- Know how to generate diagrams that visually represent the chosen situation from a set of data

- Be able to combine the different techniques studied for the design of original visualizations

- Understand how, starting from a design and a set of previous data, a visualization implementation that meets the defined requirements can be carried out

- Identify the usability and interactivity needs of data visualization methods and be able to develop a new version of the visualization that improves these aspects

- Design a system that combines data capture and storage techniques, as well as data analysis and visualization, to represent existing patterns in that data set

A stimulating journey of professional growth designed to keep you interested and motivated throughout the entire program"

03
Skills

After passing the evaluations of the Professional Master's Degree in Visual Analytics and Big Data, professionals will have acquired the necessary skills for a quality and up-to-date practice based on the most innovative teaching methodology.

This program will enable you to acquire the necessary skills to introduce the effectiveness of Visual Analytics and Big Data in the business environment"

General Skill

♦ Possess a strategic vision of the application of new Data Analysis technologies to the business world and apply them to the development of innovative services based on the information analyzed

" *Improving your skills in Visual Analytics and Big Data will give you a boost to your professional career, with greater intervention capacity and better results"*
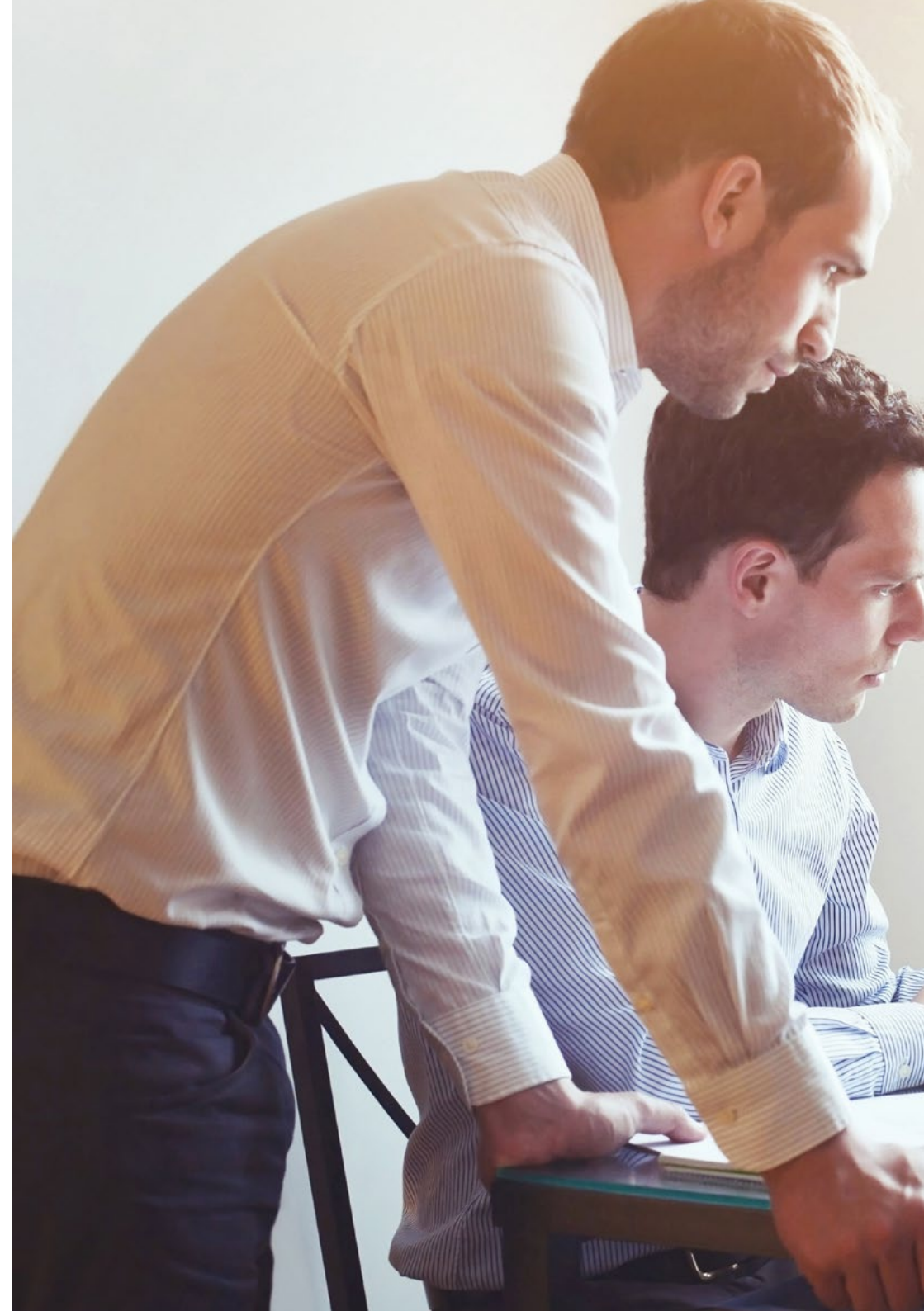
Specific Skills

- Acquire the necessary skills for professional practice in the field of Visual Analytics in the social and technological context
- Know how to analyze and interpret statistical data
- Use data evaluation and analysis techniques
- Know the tools to be used in data analysis
- Perform management and parallelization of databases of different types
- Put into practice advanced management skills in data organization
- Lead Visual Analytics and Big Data projects
- Applying data engineering to marketing
- Make data visible
- Using data visualization tools

04

Course Management

Within the quality criteria that we apply in all our programs, this Professional Master's Degree offers you the opportunity to learn from the best, with a teaching faculty made up of professionals in the sector who will invest their theoretical and practical knowledge to take you to the highest level of proficiency. With the latest and most effective teaching methods on the online teaching market.

Learn with the best and acquire the knowledge and skills you need to intervene in this area of development with total success"

Management

Mr. Galindo, Luis Ángel

- Senior High-Performance Consultant with 16 years of experience
- Definition, development and implementation of a successful open innovation model, with +10% year-on-year revenue growth leveraged on innovative assets
- Definition, development and implementation of successful Digital Transformation Programs for more than 8 years and 700+ people leading a pioneering role in the industry
- Implementation of 20+ complex consulting projects worldwide for large companies in artificial intelligence, economic intelligence, cybersecurity, business development, digital transformation, risk assessment, process optimization and people management
- Expert in understanding customers and translating their needs into actual sales

Professors

Mr. Almansa, Antonio

- Design, implementation and integration of the Julian Camarillo DC contingency center
- Senior Technician: operation, engineering and architecture of the Data Center (DC) networks located in Independencia and Orduña, as well as the transport network at national level for tariffs and discharges
- Level 2 Expert: design and implementation of networks (with technological change) of the DC of Fco. Sancha and later Manuel Tovar

Dr. Lominchar, José

- Degree in Law (UCM) Spain
- PhD in Law (Labor Law Program) (UCJC)
- Honorary PhD from the Legal Studies University Center in Mexico, 2018
- MBA: Master of Business Administration (MBA)

Ms. Álvarez de las Cuevas, Mónica

- Coordination and management of both technical and business teams, for the analysis of the status and improvement of business procedures and implementation of new digital solutions
- Project management with direct experience in the field of technical training and digital marketing solutions
- IT Engineer

Ms. Cordero García, Marta

- University Professor, Polytechnic School of Madrid
- Aerospace Engineering Department: Mathematics Applied to Aerospace Engineering

Dr. García, Felipe

- Founding Partner and President of KNOWDLE AI TECHNOLOGIES GROUP
- President promoter of the KNOWDLE CONSORTIUM GROUP ASSOCIATION
- Promoter and President of the KNOWDLE Foundation for Open Knowledge Bio Inspired
- FOUNDATION & RESEARCH INSTITUTE with an ecosystem of startups in acceleration under the same technology of Collective Artificial Intelligence
- Degree in IT from the Polytechnic University of Madrid
- Doctoral Thesis on "Wisdom Collective Intelligence"

Ms. Olmedo, Asunta

- Creative Publicist Consultant UX Writing and Graphic Design
- Communication Technician Advertising and Public Relations National Institute of Specialized Techniques
- Courses and workshops for Telefónica and the CAM
- Collaboration with different marketing and design companies (Imaginamass, Mibizpartners, WinWin consultants, We are Bold, Muebles Toscana, TeveoOnline, Bip Informáticos, The Mars Society)
- Copywriter in national and multinational advertising agencies, among other accounts: Santander Bank, Buena Vista, Canon, Coca-Cola, Maphre, Asisa, Prosegur, Camel, Ayuda en Acción, Casino Gran Madrid, La Razón, Amex, Airis, Rainbow
- Master's Degree in Graphic Design Tracor Training Center
- Community Manager Course (Community Manager Institute)
- UX and Usability Course (MiriadaX, Coursea, Factor Ideas)

05

Structure and Content

The syllabus of this Professional Master's Degree is structured as a complete tour through each and every one of the concepts required to understand and work in this field. With an approach focused on practical application that will help you grow as a professional from the very first moment.

A comprehensive syllabus focused on acquiring knowledge and converting it into real skills, created to propel you to excellence"

Module 1. Visual Analytics in the Social and Technological Context

1.1. Technological Waves in Different Societies. Towards a 'Data Society'
1.2. Globalization. Geopolitical and Social World Context
1.3. VUCA Environment. Always Living in the Past
1.4. Knowing New Technologies: 5G and IoT
1.5. Knowing New Technologies: Cloud and Edge Computing
1.6. Critical Thinking in Visual Analytics
1.7. The Know-mads. Nomads Among Data
1.8. Learning to Be an Entrepreneur in Visual Analytics
1.9. Anticipation Theories Applied to Visual Analytics
1.10. The New Business Environment. Digital Transformation

Module 2. Data Analysis and Interpretation

2.1. Introduction to Statistics
2.2. Measures Applicable to the Processing of Information
2.3. Statistical Correlation
2.4. Theory of Conditional Probability
2.5. Random Variable and Probability Distribution
2.6. Bayesian Inference
2.7. Sample Theory
2.8. Confidence Intervals
2.9. Hypothesis Testing
2.10. Regression Analysis

Module 3. Data Analysis Techniques and AI

3.1. Predictive Analytics
3.2. Evaluation Techniques and Model Selection
3.3. Lineal Optimization Techniques
3.4. Monte Carlo Simulations
3.5. Scenario Analysis
3.6. Machine Learning Techniques
3.7. Web Analytics
3.8. Text Mining Techniques
3.9. Methods of Natural Language Processing (NLP)
3.10. Social Media Analytics

Module 4. Data Analysis Tools

4.1. Data Science R Environment
4.2. Data Science Python Environment
4.3. Static and Statistical Graphs
4.4. Data Processing in Different Formats and Different Sources
4.5. Data Cleaning and Preparation
4.6. Exploratory Studies
4.7. Decision Trees
4.8. Classification and Association Rules
4.9. Neural Networks
4.10. Deep Learning

Module 5. Database Management and Data Parallelization Systems

5.1. Conventional Databases
5.2. Non-Conventional Databases
5.3. Cloud Computing: distributed data management
5.4. Tools for the Ingestion of Large Volumes of Data
5.5. Types of Parallels
5.6. Data Processing in Streaming and Real Time
5.7. Parallel Processing: Hadoop
5.8. Parallel Processing: Spark
5.9. Apache Kafka
    5.9.1. Introduction to Apache Kafka
    5.9.2. Architecture
    5.9.3. Data Structure
    5.9.4. Kafka APIs
    5.9.5. Use Cases
5.10. Cloudera Impala

Module 6. Data-Driven Soft Skills in Strategic Management of Visual Analytics

6.1. Drive Profile for Data-Driven Organizations
6.2. Advanced Management Skills in Data-Driven Organizations
6.3. Using Data to Improve Strategic Communication Performance
6.4. Emotional Intelligence Applied to Management in Visual Analytics
6.5. Effective Presentations
6.6. Improving Performance Through Motivational Management
6.7. Leadership in Data-Driven Organizations
6.8. Digital Talent in Data-Driven Organizations
6.9. Data-Driven Agile Organization I
6.10. Data-Driven Agile Organization II

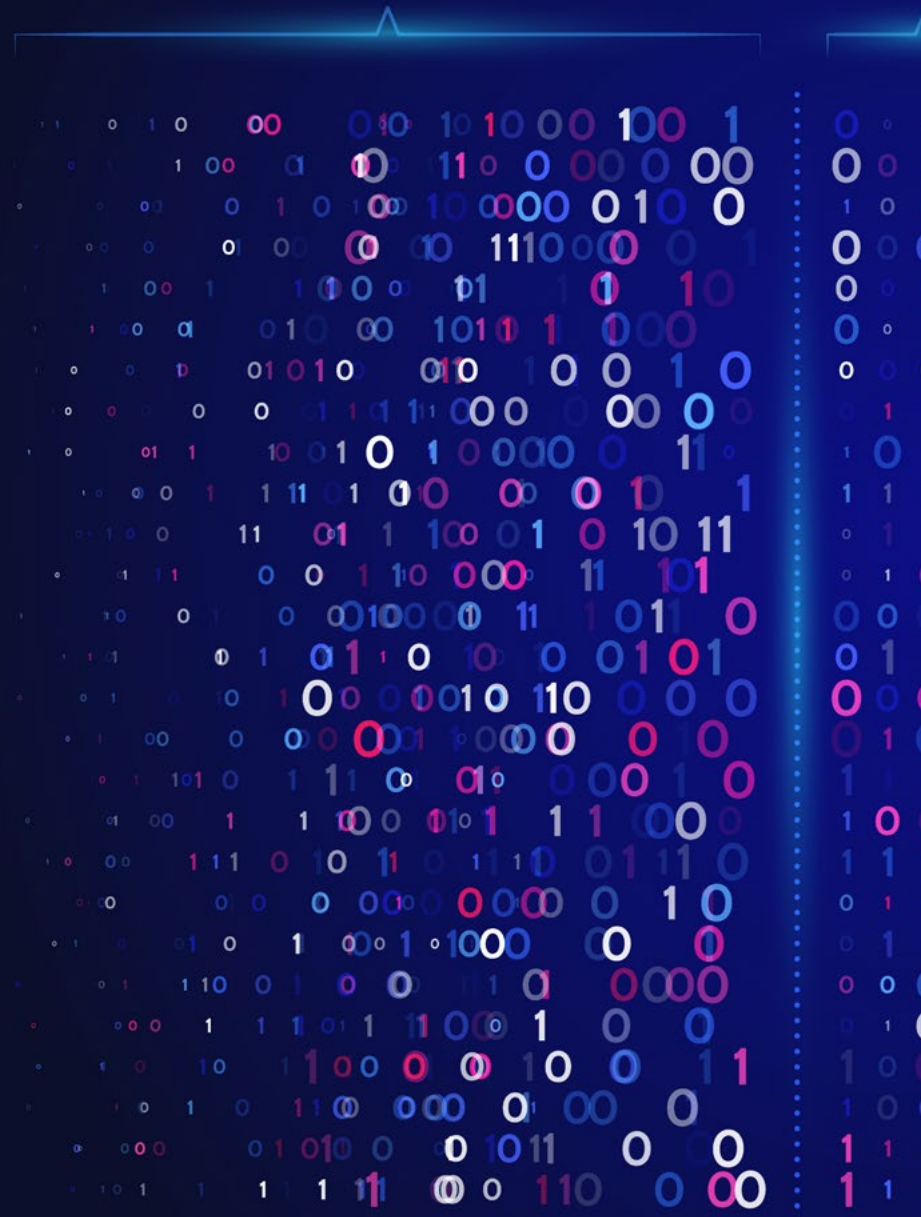## Module 7. Strategic Management of Visual Analytics and Big Data Projects

7.1.   Introduction to Strategic Project Management
7.2.   Best Practices in the Description of Big Data Processes (PMI)
7.3.   Kimball Methodology
7.4.   SQuID Methodology
7.5.   Introduction to SQuID Methodology to Approach Big Data Projects
    7.5.1.   Phase I. Sources
    7.5.2.   Phase II. Data Quality
    7.5.3.   Phase III. Impossible Questions
    7.5.4.   Phase IV. Discovering
    7.5.5.   Best Practices in the Application of SQuID in Big Data Projects
7.6.   Legal Aspects in the World of Data
7.7.   Big Data Privacy
7.8.   Cyber Security in Big Data
7.9.   Identification and De-identification with Large Volumes of Data
7.10. Data Ethics I
7.11. Data Ethics II

Module 8. Client Analysis. Applying Data Intelligence to Marketing

8.1.   Concepts of Marketing. Strategic Marketing
8.2.   Relationship Marketing
8.3.   CRM as an Organizational Hub for Customer Analysis
8.4.   Web Technologies
8.5.   Web Data Sources
8.6.   Acquisition of Web Data
8.7.   Tools for the Extraction of Data from the Internet
8.8.   Semantic Web
8.9.   OSINT: Open Source Intelligence
8.10. Master Lead or How to Improve Sales Conversion Using Big Data

Module 9. Interactive Visualization of Data

Module 10. Visualization Tools

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

"

Our program prepares you to face new challenges in uncertain environments and achieve success in your career"

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

30%

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

10%

Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

8%

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

20%

25%

4%

3%
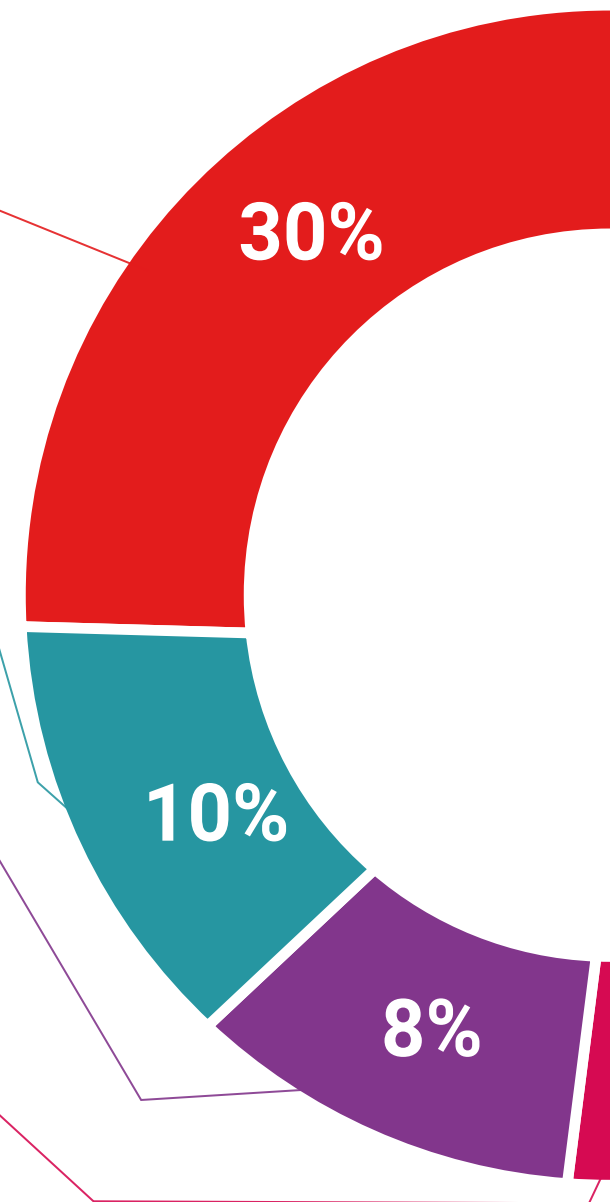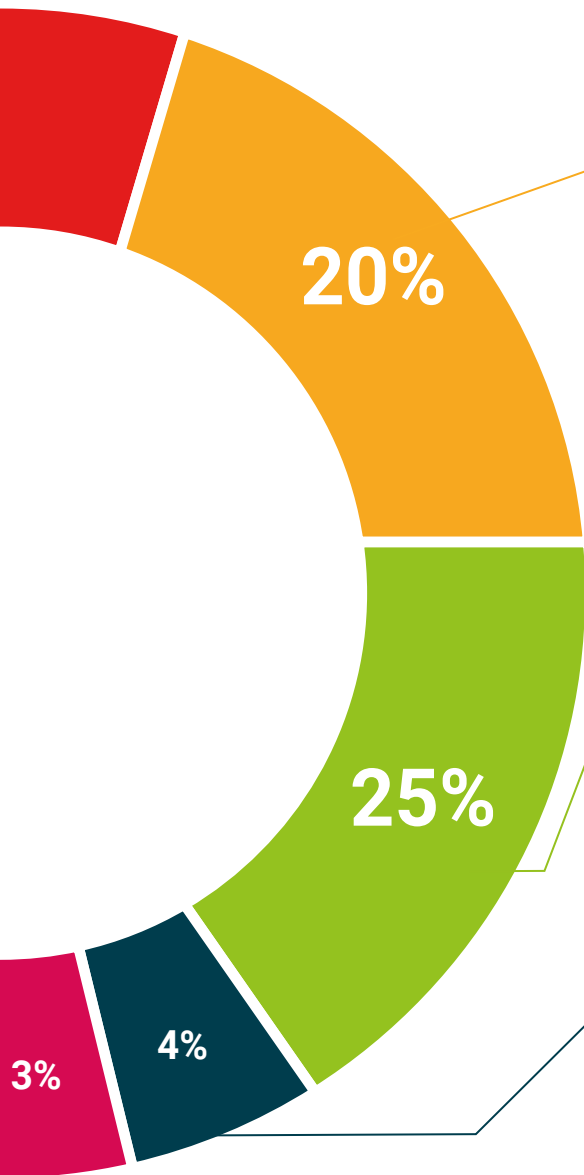
Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

07
Certificate

This Professional Master's Degree Visual Analytics and Big Data guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"
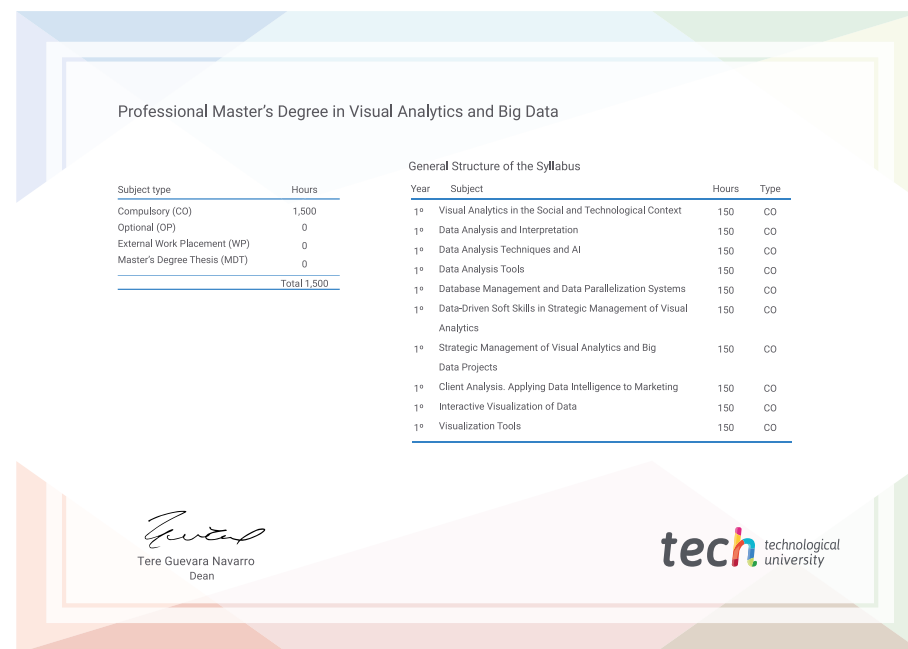
This **Professional Master's Degree in Visual Analytics and Big Data** contains the most complete and up-to-date program on the market.

After the students has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Professional Master's Degree in Visual Analytics and Big Data**

Official Nº of hours: **1,500 h.**

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tech technological university

Awards the following
CERTIFICATE
to

Mr./Ms. _____ with identification number _____.
For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Visual Analytics and Big Data

This is a qualification awarded by this University, equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

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Professional Master's Degree in Visual Analytics and Big Data

Subject type	Hours
Compulsory (CO)	1,500
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
Total 1,500	

General Structure of the Syllabus

Year	Subject	Hours	Type
1º	Visual Analytics in the Social and Technological Context	150	CO
1º	Data Analysis and Interpretation	150	CO
1º	Data Analysis Techniques and AI	150	CO
1º	Data Analysis Tools	150	CO
1º	Database Management and Data Parallelization Systems	150	CO
1º	Data-Driven Soft Skills in Strategic Management of Visual Analytics	150	CO
1º	Strategic Management of Visual Analytics and Big Data Projects	150	CO
1º	Client Analysis. Applying Data Intelligence to Marketing	150	CO
1º	Interactive Visualization of Data	150	CO
1º	Visualization Tools	150	CO

Tere Guevara Navarro
Dean

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*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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Professional Master's Degree
Visual Analytics and Big Data

» Modality: **online**
» Duration: **12 months**
» Certificate: **TECH Technological University**
» Dedication: **16h/week**
» Schedule: **at your own pace**
» Exams: **online**

Professional Master's Degree
Visual Analytics and Big Data

PBP

Issue per month at 1 AP	500
Salary of 1 administrator	2315
Number of administrators in 1 AP	1,8
Number of w/p at 1 AP	1,0
Quantity of months	4
Capital outlays per 1 AP	81 614
Gross	14 552

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