

# Postgraduate Diploma Application of Artificial Intelligence Techniques in the Life Cycle of Software Projects



## Postgraduate Diploma Application of Artificial Intelligence Techniques in the Life Cycle of Software Projects

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/in/artificial-intelligence/postgraduate-diploma/postgraduate-diploma-application-artificial-intelligence-techniques-life-cycle-software-projects](http://www.techtute.com/in/artificial-intelligence/postgraduate-diploma/postgraduate-diploma-application-artificial-intelligence-techniques-life-cycle-software-projects)

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# 01

# Introduction

Software development in web applications using Artificial Intelligence (AI) must be characterized by its security. As such, programmers have the task of protecting the privacy of users, ensuring the integrity of their personal data and complying with the regulations established at the international level. Aware of the importance of adopting sound protection practices in digital projects, more and more companies are demanding the incorporation of IT experts in this area. In this way, institutions will develop techniques to prevent cyber-attacks, such as SQL injection. For professionals to take advantage of these opportunities, TECH has developed an advanced 100% online university program, which will allow them to delve into the software architecture for QA Testing.



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*The Relearning system will reduce the long hours of study, so frequent in other teaching methods"*

Artificial Intelligence tools play a significant role in improving productivity, both in programming and software development. Among their applications, they detect and correct errors more efficiently, reducing the time spent on manual debugging. In line with this, these mechanisms search for security vulnerabilities and perform security audits in an exhaustive manner, which implies an optimization of application protection. In this way, IT specialists can consider aspects such as predicting deadlines or allocating resources to improve their schedules.

In this context, TECH has designed a pioneering course that will provide strategies to improve productivity in software development with Artificial Intelligence. Therefore, the syllabus will delve into aspects such as repository management, the integration of Machine Learning with databases and automatic translation between programming languages.

Emphasis will also be placed on the implementation of Clean Architecture to computer procedures, since it improves code quality and allows a more collaborative development. On the other hand, the materials will provide the keys to create projects with Intelligent Computing, both in LAMP and MEVN environments. In addition, multiple real case studies and exercises will be included, to bring the development of the program closer to the usual computing practice.

The curriculum will be based on a theoretical-practical perspective, offering the professional an intensive learning about web projects with Artificial Intelligence. In this way, students will assimilate the contents thanks to video summaries of each topic, specialized readings and infographics. Also, thanks to TECH's Relearning system, programmers will progress in a natural way, consolidating new concepts more easily, thus reducing the long hours of study. The only requirement for this university program will be to have an electronic device with an Internet connection, to access the Virtual Campus at any time.

This **Postgraduate Diploma in Application of Artificial Intelligence Techniques in the Life Cycle of Software Projects** contains the most complete and up-to-date program on the market. Its most notable features are:

- ♦ The development of practical cases presented by experts in Application of Artificial Intelligence Techniques in the Life Cycle of Software Projects
- ♦ 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



*You will delve into various strategies that will help you in the maintainability of applications with Machine Learning"*

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*You will delve into code optimization using ChatGPT, one of the latest trends that have revolutionized the IT landscape”*

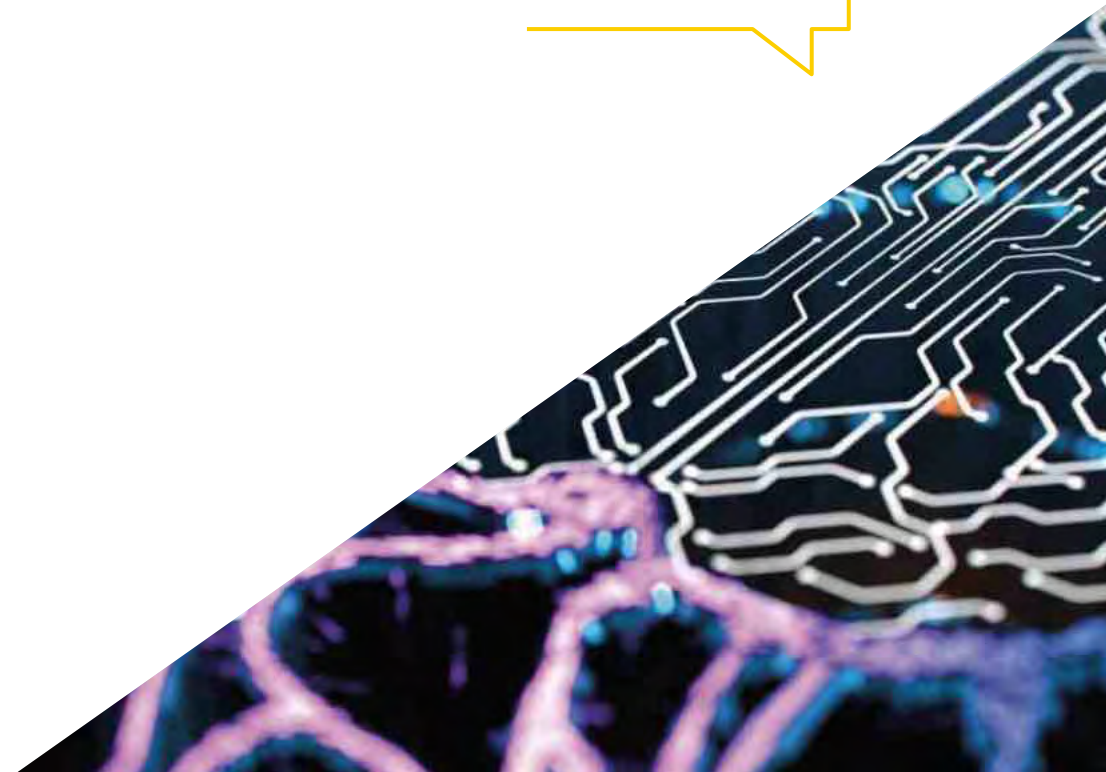
The program’s teaching staff includes professionals from the industry who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will prepare the optimal development environments for your IT processes, all thanks to this innovative 100% online program.*

*You will achieve your objectives thanks to TECH's didactic tools, including explanatory videos and interactive summaries.*



# 02

# Objectives

Upon completion of this program, programmers will master the configuration of software development environments, optimized through the use of Artificial Intelligence. They will also implement Visual Studio Code extensions to their procedures, which will improve productivity. In line with this, professionals will also develop skills to design solid test plans, covering different testing typologies to guarantee the quality of the applications. In addition, they will use the most advanced QA tools for optimal bug detection.





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*You will develop the frontend device and design highly personalized user experiences”*



## General Objectives

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- ◆ Develop skills to set up and manage efficient development environments, ensuring a solid foundation for the implementation of Artificial Intelligence projects
- ◆ Acquire skills in planning, executing and automating quality tests, incorporating Artificial Intelligence tools for *bug*detection and remediation
- ◆ Understand and apply performance, scalability and maintainability principles in the design of large-scale computing systems
- ◆ Become familiar with the most important design patterns and apply them effectively in software architecture



*You will develop the frontend device and design highly personalized user experiences"*





## Specific Objectives

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### Module 1. Improving Software Development Productivity with Artificial Intelligence

- ♦ Delve into the implementation of must-have Artificial Intelligence extensions in Visual Studio Code to improve productivity and facilitate software development
- ♦ Gain a solid understanding of basic Artificial Intelligence concepts and their application in software development, including machine learning algorithms, natural language processing, neural networks, etc
- ♦ Master the setup of optimized development environments, ensuring that students are able to create environments conducive to Artificial Intelligence projects
- ♦ Apply specific techniques using ChatGPT for automatic identification and correction of potential code improvements, encouraging more efficient programming practices
- ♦ Promote collaboration between different programming professionals (from programmers to data engineers to user experience designers) to develop effective and ethical Artificial Intelligence software solutions

### Module 2. Software Architecture for QA Testing

- ♦ Develop skills to design solid test plans, covering different types of testing and ensuring software quality
- ♦ Recognize and analyze different types of software frameworks, such as monolithic, microservices or service-oriented
- ♦ Gain a comprehensive view on the principles and techniques for designing computer systems that are scalable and capable of handling large volumes of data
- ♦ Apply advanced skills in the implementation of Artificial Intelligence-powered data structures to optimize software performance and efficiency
- ♦ Develop secure development practices, with a focus on avoiding vulnerabilities to ensure software security at the architectural level

### Module 3. Artificial Intelligence for QA Testing

- ♦ Master principles and techniques for designing computer systems that are scalable and capable of handling large volumes of data
- ♦ Apply advanced skills in the implementation of Artificial Intelligence-powered data structures to optimize software performance and efficiency
- ♦ Understand and apply secure development practices, with a focus on avoiding vulnerabilities such as injection, to ensure software security at the architectural level
- ♦ Generate automated tests, especially in web and mobile environments, integrating Artificial Intelligence tools to improve process efficiency
- ♦ Use advanced Artificial Intelligence-powered QA tools for more efficient bug detection and continuous software improvement

# 03

# Course Management

TECH's fundamental premise is students to offer educational excellence. For this reason, it has carefully selected the teaching staff that is part of this program. These professionals have extensive professional backgrounds, having worked in renowned technological institutions and years of research. Thanks to the knowledge they pour into the didactic materials, students will be able to broaden their understanding, while developing new skills to apply in their IT praxis.



“

*The diversity of talents and knowledge of the faculty will create a dynamic learning environment. Learn with the best!”*

## Management



### Dr. Peralta Martín-Palomino, Arturo

- ♦ CEO and CTO at Prometheus Global Solutions
- ♦ CTO at Korporate Technologies
- ♦ CTO at AI Shepherds GmbH
- ♦ Consultant and Strategic Business Advisor at Alliance Medical
- ♦ Director of Design and Development at DocPath
- ♦ Ph.D. in Psychology from the University of Castilla - La Mancha
- ♦ Ph.D. in Economics, Business and Finance from the Camilo José Cela University
- ♦ Ph.D. in Psychology from University of Castilla – La Mancha
- ♦ Master's in Executive MBA por la Universidad Isabel I
- ♦ Master's Degree in Sales and Marketing Management, Isabel I University
- ♦ Expert Master's Degree in Big Data by Hadoop Training
- ♦ Master's Degree in Advanced Information Technologies from the University of Castilla - la Mancha
- ♦ Member of: SMILE Research Group



### **Mr. Castellanos Herreros, Ricardo**

- ◆ Specialist in Computer Systems Engineering
- ◆ *Chief Technology Officer* at OWQLO
- ◆ Freelance Technical Consultant
- ◆ Mobile Applications Developer for eDreams, Fnac, Air Europa, Bankia, Cetelem, Banco Santander, Santillana, Groupón and Grupo Planeta
- ◆ Web Developer for Openbank and Banco Santander
- ◆ *Machine Learning Engineer* course at Udacity
- ◆ Technical Engineer in Computer Systems from the University of Castilla la Mancha

# 04

# Structure and Content

This academic itinerary will expose the keys for software development using Artificial Intelligence, as well as for the effective management of repositories. It will delve into no-code interface design, translation between programming languages and the use of intelligent tools to improve software productivity. Massive data storage will also be analyzed in detail, addressing advanced algorithms and structures. In addition, the course materials will delve into the testing life cycle, providing students with a complete picture that will ensure both the efficiency and reliability of products.



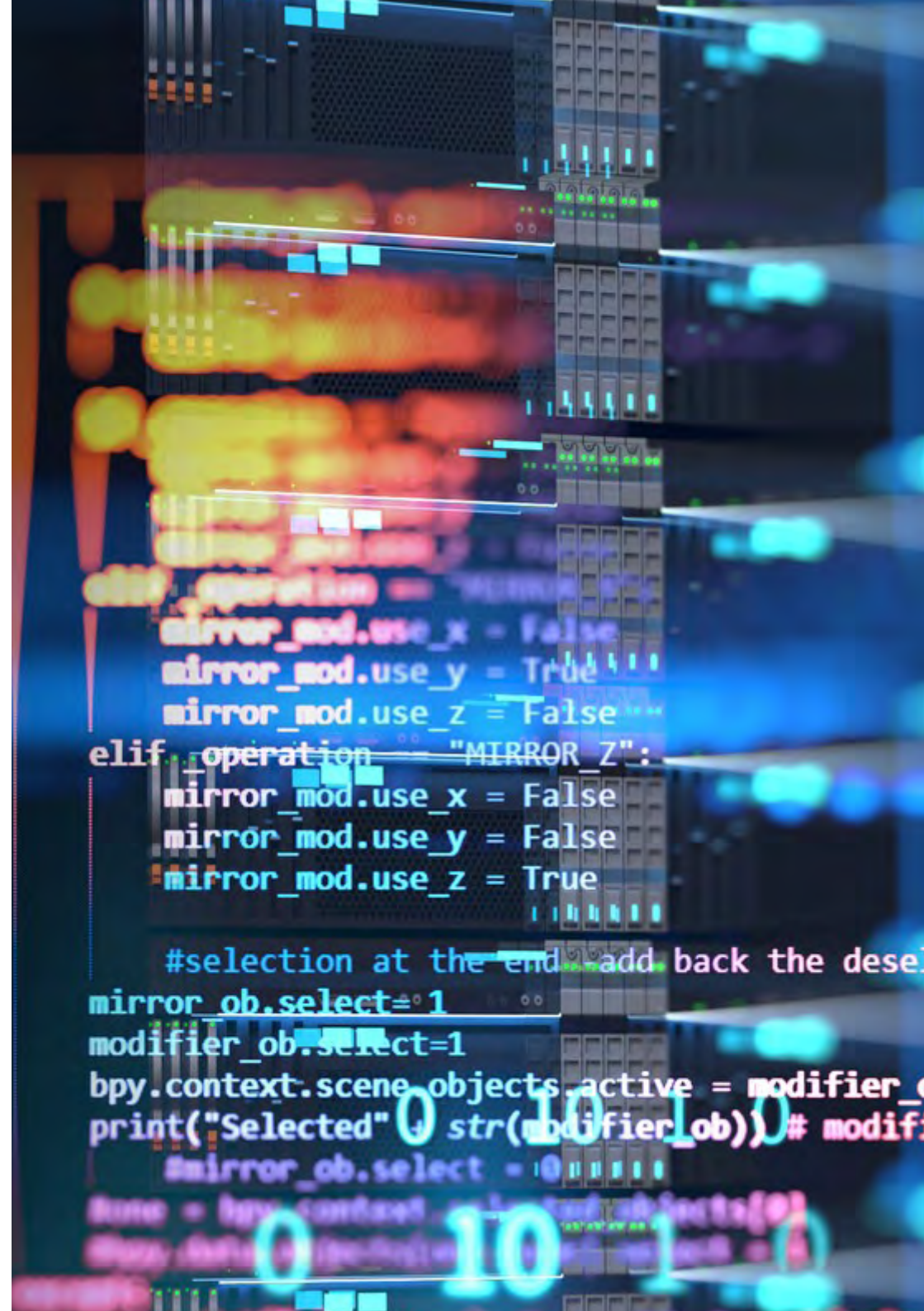


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*You will learn through real cases  
and by solving complex situations  
in simulated learning environments”*

## Module 1. Improving Software Development Productivity with Artificial Intelligence

- 1.1. Prepare a Suitable Development Environment
  - 1.1.1. Selection of Essential Tools for Artificial Intelligence Development
  - 1.1.2. Configuration of the Chosen Tools
  - 1.1.3. Implementation of CI/CD Pipelines Adapted to Artificial Intelligence Projects
  - 1.1.4. Efficient Management of Dependencies and Versions in Development Environments
- 1.2. Essential Artificial Intelligence Extensions for Visual Studio Code
  - 1.2.1. Exploring and Selecting Artificial Intelligence Extensions for Visual Studio Code
  - 1.2.2. Integration of Static and Dynamic Analysis Tools in the SDI
  - 1.2.3. Automation of Repetitive Tasks with Specific Extensions
  - 1.2.4. Customization of the Development Environment to Improve Efficiency
- 1.3. No-code Design of User Interfaces with Artificial Intelligence Elements
  - 1.3.1. No-code Design Principles and Their Application to User Interfaces
  - 1.3.2. Incorporation of Artificial Intelligence Elements in the Visual Design of Interfaces
  - 1.3.3. Tools and Platforms for No-code Creation of Intelligent Interfaces
  - 1.3.4. Evaluation and Continuous Improvement of No-code Interfaces with Artificial Intelligence
- 1.4. Code Optimization using ChatGPT
  - 1.4.1. Identifying Duplicate Code
  - 1.4.2. Refactor
  - 1.4.3. Create Readable Code
  - 1.4.4. Understanding What Code Does
  - 1.4.5. Improving Variable and Function Names
  - 1.4.6. Automatic Documentation Creation
- 1.5. Repository Management with Artificial Intelligence
  - 1.5.1. Automation of Version Control Processes with Artificial Intelligence Techniques
  - 1.5.2. Conflict Detection and Automatic Resolution in Collaborative Environments
  - 1.5.3. Predictive Analysis of Changes and Trends in Code Repositories
  - 1.5.4. Improved Organization and Categorization of Repositories using Artificial Intelligence



- 1.6. Integration of Artificial Intelligence in Database Management
  - 1.6.1. Query and Performance Optimization Using Artificial Intelligence Techniques
  - 1.6.2. Predictive Analysis of Database Access Patterns
  - 1.6.3. Implementation of Recommender Systems to Optimize Database Structure
  - 1.6.4. Monitoring and Proactive Detection of Potential Problems in Databases
- 1.7. Fault Finding and Creation of Unit Tests with Artificial Intelligence
  - 1.7.1. Automatic Generation of Test Cases Using Artificial Intelligence Techniques
  - 1.7.2. Early Detection of Vulnerabilities and Bugs using Static Analysis with Artificial Intelligence
  - 1.7.3. Improving Test Coverage by Identifying Critical Areas with Artificial Intelligence
- 1.8. Pair Programming with GitHub Copilot
  - 1.8.1. Integration and Effective Use of GitHub Copilot in Pair Programming Sessions
  - 1.8.2. Integration Improvements in Communication and Collaboration between Developers with GitHub Copilot
  - 1.8.3. Integration Strategies for Making the Most of Code Hints Generated by GitHub Copilot
  - 1.8.4. Integration Case Studies and Best Practices in Artificial Intelligence-assisted Pair Programming
- 1.9. Automatic Translation between Programming Languages
  - 1.9.1. Programming Language Specific Machine Translation Tools and Services
  - 1.9.2. Adapting Machine Translation Algorithms to Development Contexts
  - 1.9.3. Improving Interoperability between Different Languages by Machine Translation
  - 1.9.4. Assessing and Mitigating Potential Challenges and Limitations of Machine Translation
- 1.10. Recommended Artificial Intelligence Tools to Improve Productivity
  - 1.10.1. Comparative Analysis of Artificial Intelligence Tools for Software Development
  - 1.10.2. Integration of Artificial Intelligence Tools in Workflows
  - 1.10.3. Automation of Routine Tasks with Artificial Intelligence Tools
  - 1.10.4. Evaluating and Selecting Tools Based on Context and Project Requirements

## Module 2. Software Architecture with Artificial Intelligence

- 2.1. Optimization and Performance Management in Artificial Intelligence Tools
  - 2.1.1. Performance Analysis and Profiling in Artificial Intelligence Tools
  - 2.1.2. Algorithm Optimization Strategies and Artificial Intelligence Models
  - 2.1.3. Implementation of Caching and Parallelization Techniques to Improve Performance
  - 2.1.4. Tools and Methodologies for Continuous Real-Time Performance Monitoring
- 2.2. Scalability in Artificial Intelligence Applications
  - 2.2.1. Design of Scalable Architectures for Artificial Intelligence Applications
  - 2.2.2. Implementation of Partitioning and Load Distribution Techniques
  - 2.2.3. Workflow and Workload Management for Scalable Systems
  - 2.2.4. Strategies for Horizontal and Vertical Expansion in Variable Demand Environments
- 2.3. Application Maintainability with Artificial Intelligence
  - 2.3.1. Design Principles to Facilitate Maintainability in Artificial Intelligence Projects
  - 2.3.2. Specific Documentation Strategies for Artificial Intelligence Models and Algorithms
  - 2.3.3. Implementation of Unit and Integration Tests to Facilitate Maintenance
  - 2.3.4. Methods for Refactoring and Continuous Improvement in Systems with Artificial Intelligence Components
- 2.4. Design of Large-Scale Systems
  - 2.4.1. Architectural Principles for the Design of Large-Scale Systems
  - 2.4.2. Decomposition of Complex Systems into Microservices
  - 2.4.3. Implementation of Specific Design Patterns for Distributed Systems
  - 2.4.4. Strategies for Complexity Management in Large-Scale Architectures with Artificial Intelligence Components
- 2.5. Large-Scale Data Warehousing for Artificial Intelligence Tools
  - 2.5.1. Selection of Scalable Data Warehousing Technologies
  - 2.5.2. Designing Database Schemas for Efficient Management of Large Data Volumes
  - 2.5.3. Partitioning and Replication Strategies in Massive Data Storage Environments
  - 2.5.4. Implementation of Data Management Systems to Ensure Integrity and Availability in Artificial Intelligence Projects

- 2.6. Data Structures and Artificial Intelligence
  - 2.6.1. Adaptation of Classical Data Structures for Use in Artificial Intelligence Algorithms
  - 2.6.2. Designing and Optimizing Specific Data Structures for Machine Learning Models
  - 2.6.3. Integration of Efficient Data Structures in Data Intensive Systems
  - 2.6.4. Strategies for Real-Time Data Manipulation and Storage in Artificial Intelligence Data Structures
- 2.7. Programming Algorithms for Artificial Intelligence Products
  - 2.7.1. Development and Implementation of Application-Specific Algorithms for Artificial Intelligence Applications
  - 2.7.2. Algorithm Selection Strategies according to Problem Type and Product Requirements
  - 2.7.3. Adaptation of Classical Algorithms for Integration into Artificial Intelligence Systems
  - 2.7.4. Evaluation and Comparison of Performance between Different Algorithms in Artificial Intelligence Development Contexts
- 2.8. Design Patterns for Artificial Intelligence Development
  - 2.8.1. Identification and Application of Common Design Patterns in Projects with Artificial Intelligence Components
  - 2.8.2. Development of Specific Patterns for the Integration of Models and Algorithms into Existing Systems
  - 2.8.3. Pattern Implementation Strategies for Improving Reusability and Maintainability in Artificial Intelligence Projects
  - 2.8.4. Case Studies and Best Practices in the Application of Design Patterns in Artificial Intelligence Architectures
- 2.9. Implementation of Clean Architecture
  - 2.9.1. Fundamental Principles and Concepts of Clean Architecture
  - 2.9.2. Adaptation of Clean Architecture to Projects with Artificial Intelligence Components
  - 2.9.3. Implementation of Layers and Dependencies in Systems with Clean Architecture
  - 2.9.4. Benefits and Challenges of Implementing Clean Architecture in Artificial Intelligence Software Development





- 2.10. Secure Software Development in Web Applications with Artificial Intelligence
  - 2.10.1. Principles of Security in Software Development with Artificial Intelligence Components
  - 2.10.2. Identifying and Mitigating Potential Vulnerabilities in Artificial Intelligence Models and Algorithms
  - 2.10.3. Implementation of Secure Development Practices in Web Applications with Artificial Intelligence Functionalities
  - 2.10.4. Strategies for the Protection of Sensitive Data and Prevention of Attacks in Artificial Intelligence Projects

### Module 3. Artificial Intelligence for QA Testing

- 3.1. Testing Life Cycle
  - 3.1.1. Description and Understanding of the Testing Life Cycle in Software Development
  - 3.1.2. Phases of the Testing Life Cycle and Its Importance for Quality Assurance
  - 3.1.3. Integration of Artificial Intelligence in Different Stages of the Testing Life Cycle
  - 3.1.4. Strategies for Continuous Improvement of the Testing Life Cycle using Artificial Intelligence
- 3.2. Test Cases and Bug Detection
  - 3.2.1. Effective Test Case Design and Writing in the QA Testing Context
  - 3.2.2. Identification of Bugs and Errors during Test Case Execution
  - 3.2.3. Application of Early Bug Detection Techniques using Static Analysis
  - 3.2.4. Use of Artificial intelligence Tools for the Automatic Identification of Bugs in Test Cases
- 3.3. Types of Testing
  - 3.3.1. Exploration of Different Types of Testing in the QA Domain
  - 3.3.2. Unit, Integration, Functional, and Acceptance Testing: Characteristics and Applications
  - 3.3.3. Strategies for the Selection and Appropriate Combination of Testing Types in Artificial Intelligence Projects
  - 3.3.4. Adaptation of Conventional Testing Types to Projects with Artificial Intelligence Components

- 3.4. Creating a Test Plan
  - 3.4.1. Designing and Structuring a Comprehensive Test Plan
  - 3.4.2. Identifying Requirements and Test Scenarios in Artificial Intelligence Projects
  - 3.4.3. Strategies for Manual and Automated Test Planning
  - 3.4.4. Continuous Evaluation and Adjustment of the Test Plan as the Project Develops
- 3.5. Artificial Intelligence Bug Detection and Reporting
  - 3.5.1. Implementation of Automatic Bug Detection Techniques using Machine Learning Algorithms
  - 3.5.2. Use of Artificial Intelligence Tools for Dynamic Code Analysis in Search of Possible Errors
  - 3.5.3. Strategies for Automatic Generation of Detailed Reports on Artificial Intelligence-Detected Bugs
  - 3.5.4. Effective Collaboration between Development and QA Teams in the Management of Artificial Intelligence-Detected Bugs
- 3.6. Creation of Automated Testing with Artificial Intelligence
  - 3.6.1. Development of Automated Test Scripts for Projects with AI Components
  - 3.6.2. Integration of Artificial Intelligence-based Test Automation Tools
  - 3.6.3. Use of Machine Learning Algorithms for Dynamic Generation of Automated Test Cases
  - 3.6.4. Strategies for Efficient Execution and Maintenance of Automated Test Cases in Artificial Intelligence Projects
- 3.7. API Testing
  - 3.7.1. Fundamental Concepts of API Testing and Its Importance in QA
  - 3.7.2. Development of Tests for API Verification in Environments with Artificial Intelligence Components
  - 3.7.3. Strategies for Data and Results Validation in API Testing with Artificial Intelligence
  - 3.7.4. Use of Specific Tools for API Testing in Artificial Intelligence Projects



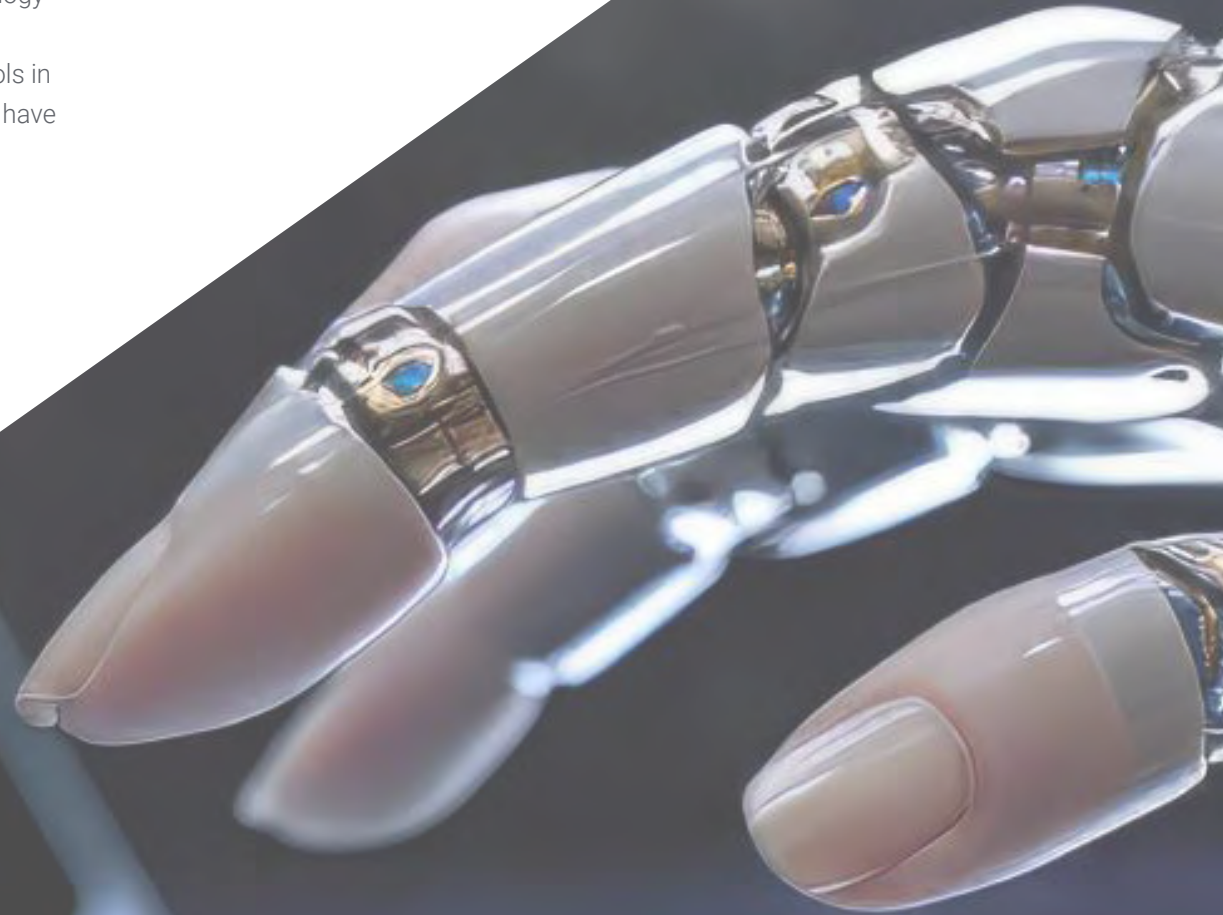
- 3.8. Artificial Intelligence Tools for Web Testing
  - 3.8.1. Exploring Artificial Intelligence Tools for Test Automation in Web Environments
  - 3.8.2. Integration of Element Recognition and Visual Analysis Technologies in Web Testing
  - 3.8.3. Strategies for Automatic Detection of Changes and Performance Problems in Web Applications using Artificial Intelligence
  - 3.8.4. Evaluation of Specific Tools for Improving Efficiency in Web Testing with Artificial Intelligence
- 3.9. Mobile Testing Using Artificial Intelligence
  - 3.9.1. Development of Testing Strategies for Mobile Applications with Artificial Intelligence Components
  - 3.9.2. Integration of Specific Testing Tools for Artificial Intelligence-based Mobile Platforms
  - 3.9.3. Use of Machine Learning Algorithms for the Detection of Performance Problems in Mobile Apps
  - 3.9.4. Strategies for the Validation of Specific Mobile Application Interfaces and Functions using Artificial Intelligence
- 3.10. QA Data Science and Artificial Intelligence
  - 3.10.1. Exploration of QA Tools and Platforms that Incorporate Artificial Intelligence Functionalities
  - 3.10.2. Evaluation of Tools for Efficient Test Management and Execution in Artificial Intelligence Projects
  - 3.10.3. Use of *Machine Learning* Algorithms for Test Case Generation and Optimization
  - 3.10.4. Strategies for Effective Selection and Adoption of QA Tools with Artificial Intelligence Capabilities

05

# 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.



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.



### 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.



### 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.



### 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.





#### 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.



06

# Certificate

The Postgraduate Diploma in Application of Artificial Intelligence Techniques in the Life Cycle of Software Projects guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.





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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This **Postgraduate Diploma in Application of Artificial Intelligence Technique in the Life Cycle of Software Projects** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Diploma Application of Artificial Intelligence Techniques in the Life Cycle of Software Projects**

Official N° of Hours: **450 h.**



\*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.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



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