Postgraduate Certificate
Mobile Application Development with Artificial Intelligence

tech technological university

Postgraduate Certificate
Mobile Application Development with Artificial Intelligence

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

Website: **www.techtitute.com/pk/artificial-intelligence/postgraduate-certificate/mobile-application-development-artificial-intelligence**

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01
Introduction

In the context of mobile application development, the creation of detail screens is a useful programming practice, especially if Artificial Intelligence (AI) is used. These tools display detailed information about specific items in a list or dataset. For example, high-resolution images, activity histories or comments. They also improve the user experience by gaining a deeper and more complete view of a given issue. However, when implementing these procedures, experts need to take into account a number of steps to execute them correctly. For this reason, TECH has developed an advanced 100% online university program that will provide professionals with the keys to develop these screens.

"
You will delve into dashboard creation through 150 hours of the best digital teaching"
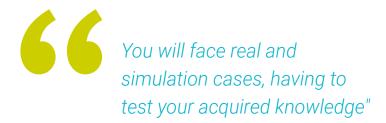
Preparing the work environment for mobile development with Artificial Intelligence is essential to ensure that developers can create highly effective applications. This procedure ensures that computer scientists have access to all the necessary tools to work with Machine Learning (such as development frameworks, specialized hardware or powerful graphics cards). In this regard, the proper configuration of installations is essential to address issues related to the security of data handling on the devices. In this way, professionals will take advantage of all available resources to create the most attractive applications.

In order to help them in this task, TECH is launching a revolutionary program that will delve into the specificities of mobile applications using Artificial Intelligence. The curriculum will help students create *Workspace* spaces with Github copilot. In addition, the syllabus will place special emphasis on Firebase configuration so that graduates can get the most out of this development platform created by Google. It will also cover essential concepts such as *Clean Architecture*, *Datasources* and *Repositories.* On the other hand, students will learn how to build *dashboards* from scratch, so that leaders can make informed decisions and identify trends, problems or opportunities.

For this learning, students will have a 100% online platform and various multimedia resources. At the same time, TECH's *Relearning* methodology will favor the development of competencies and the mastery of complex concepts in a faster, more efficient and flexible way. All this with a university program that will not be subject to rigid schedules so that each graduate can choose the time and place to focus on this Postgraduate Certificate. The only requirement is that students have a digital device (such as a cell phone, tablet or computer) to enter the Virtual Campus and access a myriad of teaching resources characterized by their dynamism.

This **Postgraduate Certificate in Mobile Application Development with Artificial Intelligence** contains the most complete and up-to-date program on the market. The most important features include:

- The development of practical cases presented by experts in Artificial Intelligence in programming.
- 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 self-assessment can be used 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 face real and simulation cases, having to test your acquired knowledge"

Access all the specialized knowledge about how the settings screen works in this 100% online Postgraduate Certificate.

You will get into the fundamentals of Mobile Applications including Clean Architecture, Datasourses and Repositories.

"" *At your own speed! The Relearning methodology used in this program will allow you to learn in an autonomous and progressive way"*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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.

02
Objectives

To ensure rigorous learning focused on the demands of the labor field, the design of this Postgraduate Certificate will allow graduates to develop innovative skills. In this way, students will design elements such as interactive screens, icons or graphic resources using Artificial Intelligence to improve the user experience in mobile applications. In turn, experts will configure the work environment and effectively use Github Copilot in order to streamline development processes. IT professionals will also ensure a robust and modular structure in the programs thanks to the implementation of *Clean Architecture.*

"
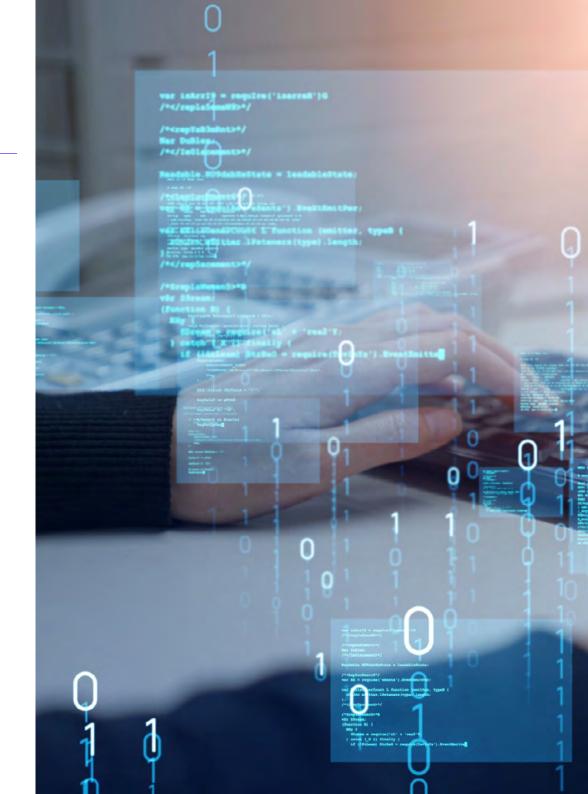*Adopt the latest advances in the creation of authentication screens in your IT procedures in just 6 weeks"*

General Objectives

- Develop skills to set up and manage efficient development environments, ensuring a solid foundation for the implementation of AI projects

- Acquire skills in planning, executing and automating quality tests, incorporating AI 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

A complete and cutting-edge program that will allow you to advance progressively and completely, from the comfort of your home"

Specific Objectives

- Apply advanced concepts of *clean architecture, datasources and repositories* to ensure a robust and modular structure in AI-enabled mobile applications

- Develop skills to design interactive screens, icons and graphical resources using AI to enhance the user experience in mobile applications

- Delve into mobile app framework configuration and employ *Github Copilot* to streamline the development process

- Optimize mobile applications with AI for efficient performance, taking into account resource management and data usage

- Perform quality testing of AI mobile applications, enabling students to identify problems and debug bugs

03
Course Management

One of TECH's top priorities when designing its programs is the formation of a teaching staff that provides knowledge and experience. Therefore, for this Postgraduate Certificate, TECH has selected professionals specialized in the Development of Mobile Applications with Artificial Intelligence. This teaching staff stands out for having a long professional career, which has allowed them to work in recognized institutions of international prestige. This has helped them to keep abreast of the latest technological trends in this field, effectively handling the most contemporary tools.

" *A university program with a multidisciplinary approach taught by true experts in Mobile Application Development with Artificial Intelligence"*

Management

Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometeus 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
- PhD in Economics, Business and Finance from the Camilo José Cela University
- Ph.D.in Psychology from University of Castilla – La Mancha
- Máster 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

Given the importance of mobile applications, this Postgraduate Certificate will guide students in the development of this subject using Artificial Intelligence. The curriculum will delve into the creation of *Workspaces* using *Github Copilot*, which will help developers to write code quickly. The syllabus will delve into *Firebase* configuration, an indispensable element for applications to be able to use Google services. The course materials will also explore key concepts of *Clean Architecture*, offering guidance in the creation of both diverse screens and essential functions for mobile programs powered by Machine Learning.

You will delve into programming architectures oriented to the development of applications on mobile devices with Artificial Intelligence"

Module 1. AI-enabled Mobile Applications

1.1.   Preparation of Working Environment for Mobile Development with AI

    1.1.1.   Configuration of Mobile Development Environments for Projects with Artificial Intelligence

    1.1.2.   Selection and Preparation of Specific Tools for Mobile Application Development with AI

    1.1.3.   Integration of AI Libraries and *Frameworks* in Mobile Development Environments

    1.1.4.   Configuration of Emulators and Real Devices for Testing Mobile Applications with AI Components

1.2.   Creating a *Workspace* with GitHub Copilot

    1.2.1.   Integration of GitHub Copilot in Mobile Development Environments

    1.2.2.   Effective Use of GitHub Copilot for Code Generation in AI Projects

    1.2.3.   Strategies for Developer Collaboration when using GitHub Copilot in the *Workspace*

    1.2.4.   Best Practices and Limitations in the Use of GitHub Copilot in Mobile Application Development with AI

1.3.   Firebase Configuration

    1.3.1.   Initial Configuration of a Firebase Project for Mobile Development

    1.3.2.   Firebase Integration in Mobile Applications with Artificial Intelligence Functionalities

    1.3.3.   Use of Firebase Services as a Database, Authentication and Notifications in AI Projects

    1.3.4.   Strategies for Real-Time Data and Event Management in Firebase-enabled Mobile Applications

1.4.   Concepts of *Clean Architecture*, DataSources, Repositories

    1.4.1.   Fundamental Principles of *Clean Architecture* in Mobile Development with AI

    1.4.2.   Implementation of DataSources and Repositories Layers in Clean Architectures

    1.4.3.   Design and Structuring of Components in Mobile Projects with a Focus on Clean Architecture

    1.4.4.   Benefits and Challenges of Implementing *Clean Architecture* in Mobile Applications with AI

Get a qualification in a specialized program and obtain the profile desired by the most demanding companies in the telecommunications sector"

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.

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.

30%

10%

8%

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.

Certificate

The Postgraduate Certificate in Mobile Application Development with Artificial Intelligence guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Mobile Application Development with Artificial Intelligence** 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 Certificate** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Certificate in Mobile Application Development with Artificial Intelligence**
Official Nº of Hours: **150 h.**

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Awards the followi ng
CERTIFICATE
to
Mr./Ms. _____, with identification number _____ .
For having passed and accredited the following progra m

POSTGRADUATE CERTIFICATE
in

Mobile Application Development with Artificial Intelligence

This is a qualification awarded by this University, equivalent to 150 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

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Unique TECH Code: AFWORD23S   techtitute.com/certificates

*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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