





Internship Program
Artificial Intelligence in Design

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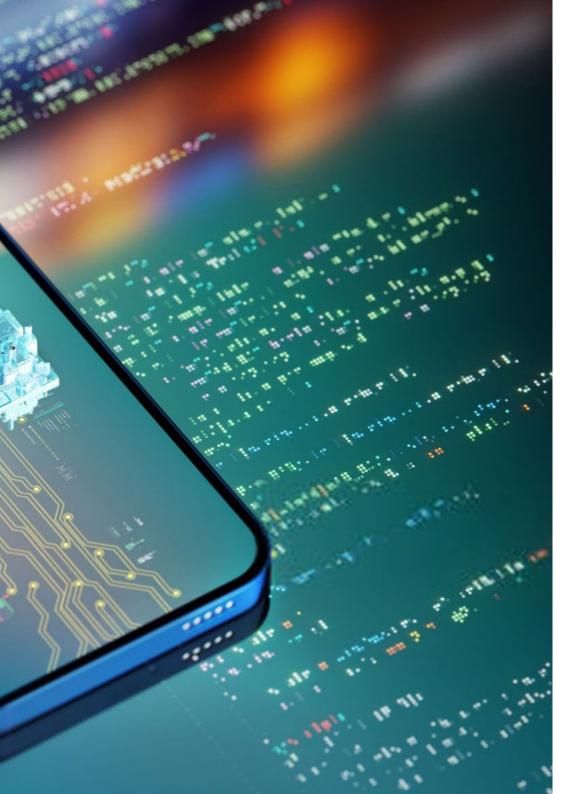
## 01 Introduction

Artificial Intelligence (AI) is completely revolutionizing the field of Design by automating repetitive tasks, providing creative assistance and enabling the creation of visual content generated by intelligent tools. More and more companies are realizing the benefits of this discipline, including the dynamic personalization of the user experience based on their own individual preferences. For this reason, TECH has created this program, in which in 3 weeks students will be integrated into a team versed in Artificial Intelligence in Design to catch up on the latest developments and technologies available in this area.

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You will develop skills to analyze design data, which will allow you to obtain useful information about user patterns and market trends"





### Artificial Intelligence in Design | 05 tech

Intelligent Systems have become an indispensable resource for designers, as they analyze user data to identify patterns and trends. In this way, experts can optimize their designs to provide them with better usability and improve the user experience. In addition, they can automatically identify design errors and problems in development prototypes. Thanks to this, professionals correct their projects before they are launched, therefore reducing the risk of problems after implementation. In this scenario, TECH has developed a program consisting of a 120-hour stay in a reference entity in the field of Artificial Intelligence in Design.

Throughout 3 weeks, the graduates will become part of a team of specialists of the highest level, with whom they will work actively in the creation of creative products. In this way, students will develop advanced skills to handle tools such as TensorFlow, Deep Dream Generator or Fotor. Thanks to this, they will optimize their daily practice and make the most of the multiple opportunities offered by this industry.

On the other hand, during the on-site stay, the graduates will have the support of an assistant tutor. This figure will be in charge of ensuring compliance with all the requirements for which this Internship Program has been designed. At the same time, they will resolve any doubts that may arise during the academic itinerary and will provide students with personalized advice according to their needs. Undoubtedly, this is an ideal learning proposal for designers who want to acquire new skills to carry out highly innovative and creative proposals.

## 02 Why Study an Internship Program?

Artificial Intelligence is transforming several industries, including design. For this reason, there is a growing demand for professionals who understand how to apply these tools effectively in the design of digital products and services. Given this reality, TECH has developed a university program that will allow students to enter a reference institution where they can put into practice the latest techniques in the field of Artificial Intelligence applied to Design. During 3 intensive weeks, they will be integrated into a multidisciplinary work team, where they will acquire skills to handle tools such as TensorFlow and optimize the performance of the models.



TECH is the only university that offers you the possibility of entering into the most demanding work environments to delve into your knowledge of the latest advances in Artificial Intelligence in Design"

#### 1. Updating from the latest technology available

Technology plays a fundamental role in the integration of Artificial Intelligence in Design, providing designers with tools to improve the creation of products. An example of this is Machine Learning algorithms or Neural Networks. Thanks to this Internship Program, students will enter a prestigious company that uses the most sophisticated technological systems to guarantee a correct performance of the activities.

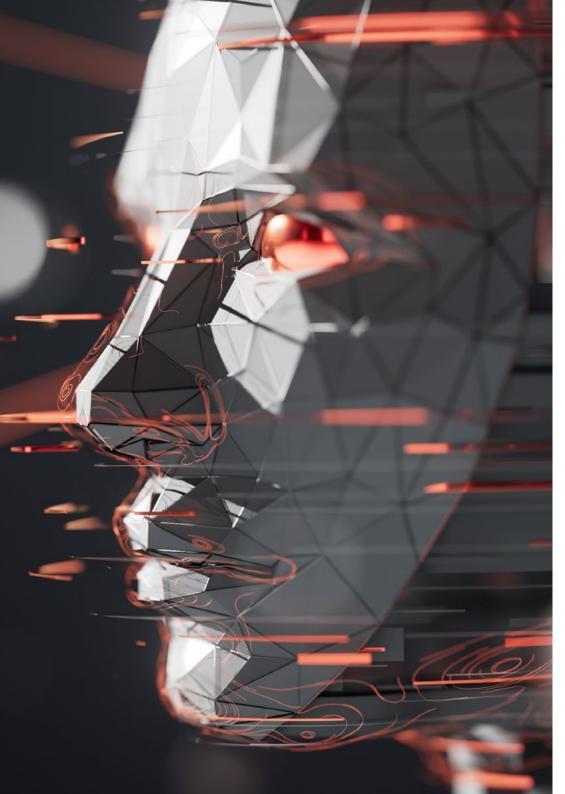
#### 2. Gaining in-depth knowledge from the experience of top specialists

Throughout the entire practical period, graduates will be supported by an experienced team of professionals. These experts will transmit to the students the latest trends in subjects such as Data Mining, Deep Computer Vision or Natural Language Processing. In this way, students will acquire advanced skills to optimize their daily practice.

#### 3. Entering first-class professional environments

TECH carefully selects the centers available for the Internship Program. As a result, students will be guaranteed access to a prestigious institution in the area of Artificial Intelligence in Design. Thanks to this, graduates will be able to embark on an academic experience that will significantly broaden their professional horizons.





### 4. Putting the acquired knowledge into daily practice from the very first moment

TECH offers students a disruptive learning model that is 100% online, with the aim of enabling them to acquire the necessary skills to successfully perform in their profession. For 3 weeks, graduates will join a renowned institution to participate in the projects in which they are involved.

#### 5. Expanding the boundaries of knowledge

This TECH Internship Program is an ideal opportunity for graduates to gain access to a highly prestigious company. In this way, students will enter a professional culture different from their own, which will also become a significant asset that they will be able to use in any company.



You will have full practical immersion at the center of your choice"

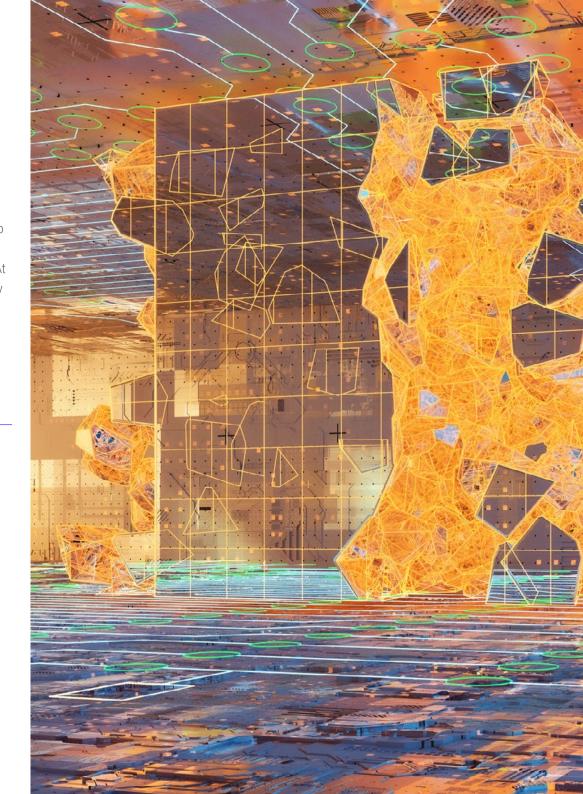
# 03 Objectives

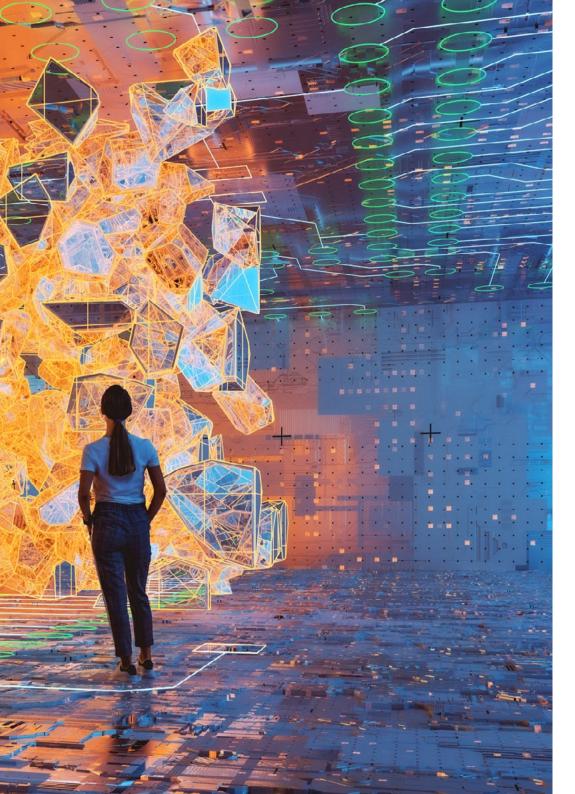
This Internship Program will provide designers with technical skills in key areas of Artificial Intelligence, including Natural Language Processing, Computer Vision or Deep Learning. In this way, graduates will carry out projects using techniques such as user experience personalization, automatic design generation and user behavior analysis. At the same time, students will effectively handle sophisticated tools such as TensorFlow to create generative models capable of automatically generating visual elements.



#### **General Objectives**

- Understand the theoretical foundations of Artificial Intelligence
- Study the different types of data and understand the data lifecycle
- Evaluate the crucial role of data in the development and implementation of Al solutions
- Delve into algorithms and complexity to solve specific problems
- Explore the theoretical basis of neural networks for Deep Learning development
- Analyze bio-inspired computing and its relevance in the development of intelligent systems





### Artificial Intelligence in Design | 09 tech

- Analyze current strategies of Artificial Intelligence in various fields, identifying opportunities and challenges
- Develop skills to implement Artificial Intelligence tools in design projects, covering automatic content generation, design optimization and pattern recognition
- Apply collaborative tools, leveraging Artificial Intelligence to improve communication and efficiency in design teams
- Understand the symbiosis between interactive design and Artificial Intelligence to optimize user experience
- Develop skills in adaptive design, considering user behavior and applying advanced Artificial Intelligence tools
- Understand the transformative role of Artificial Intelligence in the innovation of design and manufacturing processes



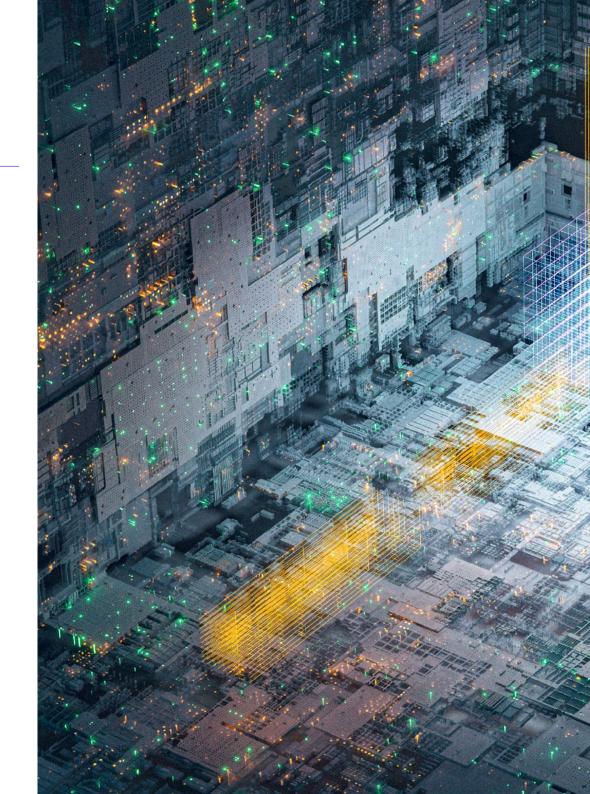
Develop Virtual Assistants specialized in Design to automatically generate designs and prototypes of digital products"

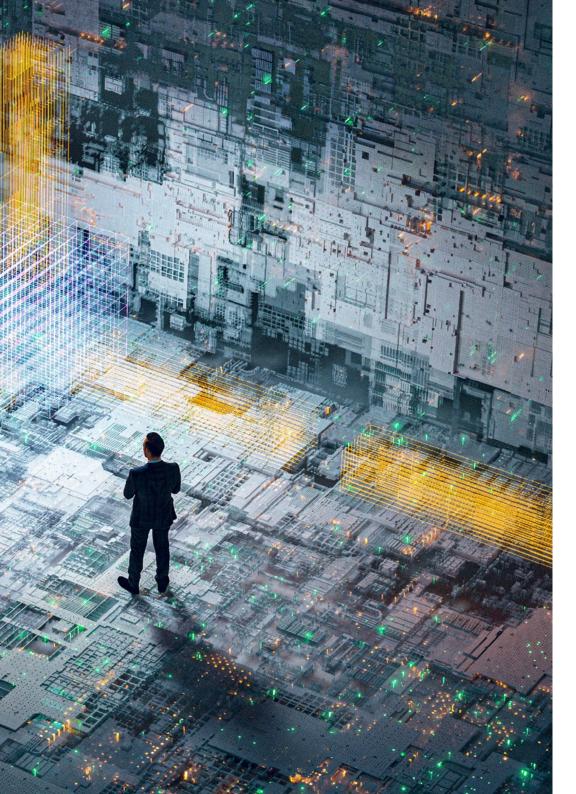
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#### **Specific Objectives**

- Analyze the historical evolution of Artificial Intelligence, from its beginnings to its current state, identifying key milestones and developments
- Understand the functioning of neural networks and their application in learning models in Artificial Intelligence
- Analyze the life cycle of data, from generation to disposal, identifying key stages
- Explore the initial stages of the data life cycle, highlighting the importance of data planning and structure
- Analyze supervised and unsupervised models, including methods and classification
- Use specific tools and best practices in data handling and processing, ensuring efficiency and quality in the implementation of Artificial Intelligence
- Master the techniques of statistical inference to understand and apply statistical methods in data mining
- Perform detailed exploratory analysis of data sets to identify relevant patterns, anomalies, and trends
- Introduce algorithm design strategies, providing a solid understanding of fundamental approaches to problem solving
- Analyze the efficiency and complexity of algorithms, applying analysis techniques to evaluate performance in terms of time and space
- Evaluate and compare different knowledge representations, integrating these to improve the efficiency and accuracy of intelligent systems





### Artificial Intelligence in Design | 11 tech

- Study clustering techniques to identify patterns and structures in unlabeled data sets
- Develop skills in Adaptive Design, considering user behavior and applying advanced AI tools
- Implement Transfer Learning as an advanced technique to improve model performance on specific tasks
- Implement mass customization strategies in production using Artificial Intelligence, adapting products to individual needs
- Apply microchip architecture optimization techniques using AI to improve both performance and efficiency

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This Internship Program offers you the opportunity to develop in a real work scenario, with the guarantee of an institution at the forefront of technology"

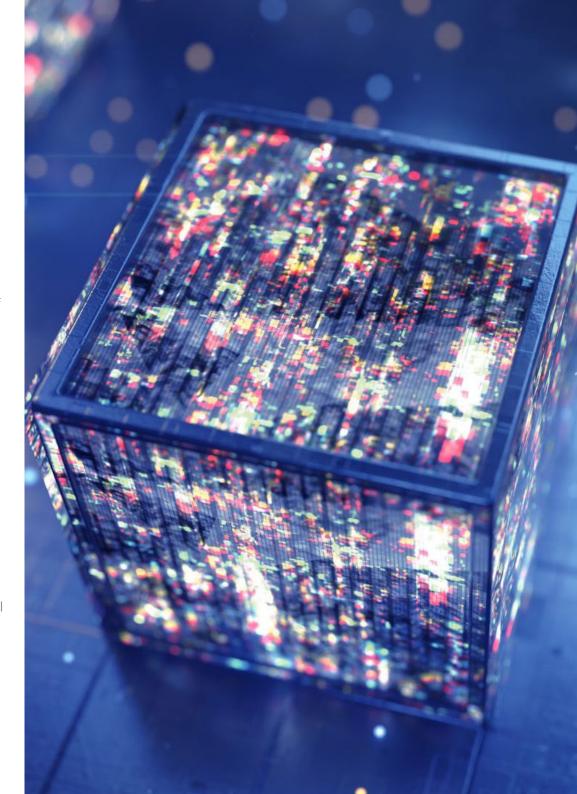
### 04 Educational Plan

The Internship Program of this program in Artificial Intelligence in Design is composed of a 3-week on-site stay in a prestigious company, from Monday to Friday, with 8 consecutive hours of Internship Program with an assistant specialist. This experience will give graduates access to a real work scenario, alongside a team of professionals of reference in this field.

In this specialization proposal, of a completely practical nature, the activities are aimed at developing and perfecting the skills necessary for the provision of Artificial Intelligence services in Design and are oriented towards specific specialization for the exercise of the activity, in an environment of patient safety and high professional performance.

The students have an ideal opportunity to immerse themselves in the reality of the labor market. For this purpose, they will be provided with first class facilities, equipped with the necessary technological tools to carry out their work with maximum efficiency.

The practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other course partners that facilitate teamwork and multidisciplinary integration as transversal competencies for the praxis of Artificial Intelligence in Design (learning to be and learning to relate).



The procedures described below will be the basis of the practical part of the program, and their implementation will be subject to the center's own availability and workload, the proposed activities being the following:

Module	Practical Activity
Data Life Cycle	Classify data according to its type, content and sensitivity for its proper management
	Establish storage methods to store data in an accessible form
	Process data to transform, clean and prepare it for use in different applications
	Conduct periodic audits and monitor data usage to ensure compliance with privacy policies
Training with TensorFlow	Perform preprocessing operations on the data to prepare it for model training
	Modify the model architecture to better fit the data and the problem at hand
	Optimize model hyperparameters, such as learning rate or batch size
	Apply regularization techniques in order to avoid model overfitting
Artificial Vision	Locate the presence of specific objects within an image
	Assign a class label to each pixel in an image to identify different semantic regions
	Create entirely new images that are realistic and consistent with the input data using adversarial generators
	Improve the resolution and visual quality of low-resolution images using Deep Learning techniques

Module	Practical Activity
Data Mining	Perform descriptive analysis to summarize and visualize data
	Use modeling techniques such as decision trees to identify interesting patterns and understand relationships between variables
	Adjust the parameters of the models and select the most important features to optimize their performance
	Monitor the performance of the implemented models and make adjustments as needed to ensure their accuracy over time
Artificial Intelligence to Design-User	Employ Artificial Intelligence techniques to analyze user behavior on digital platforms
	Use data collected from user interaction with digital products and services to continually optimize interface design
	Design chatbots and virtual assistants that interact naturally with consumers
	Implement algorithms to recommend specific design elements (such as colors, fonts or visual styles)



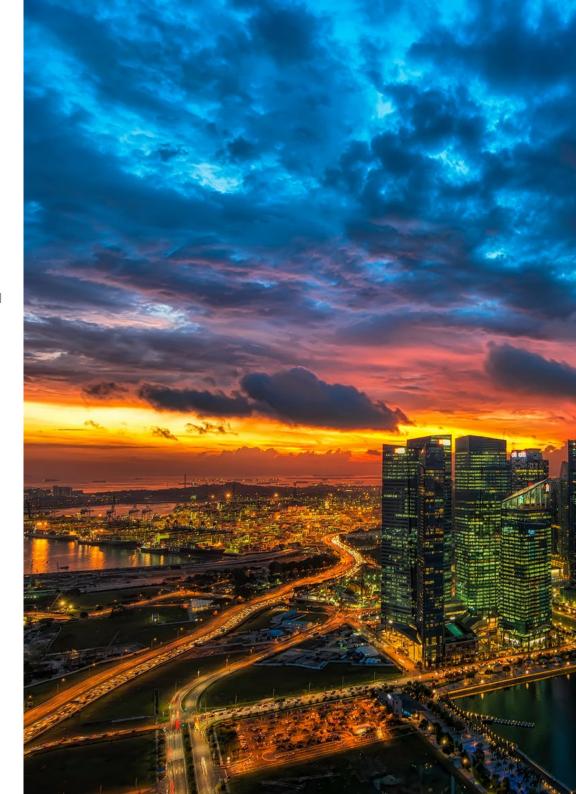
You will carry out your Internship
Program in an institution at the
forefront of technology, where you
will have the support of a team of
professionals in the sector"

## 05 Where Can I Do the Internship Program?

TECH's maxim is to offer a first quality education affordable to the majority of people. For this reason, it has broadened the academic horizons so that this Internship Program can be taught in various centers at an international level. Undoubtedly, an ideal opportunity for graduates to grow professionally alongside the best specialists in the sector in various institutions of reference.



You will carry out your practical stay in a highly prestigious institution, where you will have the support of true professionals in Artificial Intelligence"







The student will be able to do this program at the following centers:





Make the most of this opportunity to surround yourself with expert professionals and learn from their work methodology"

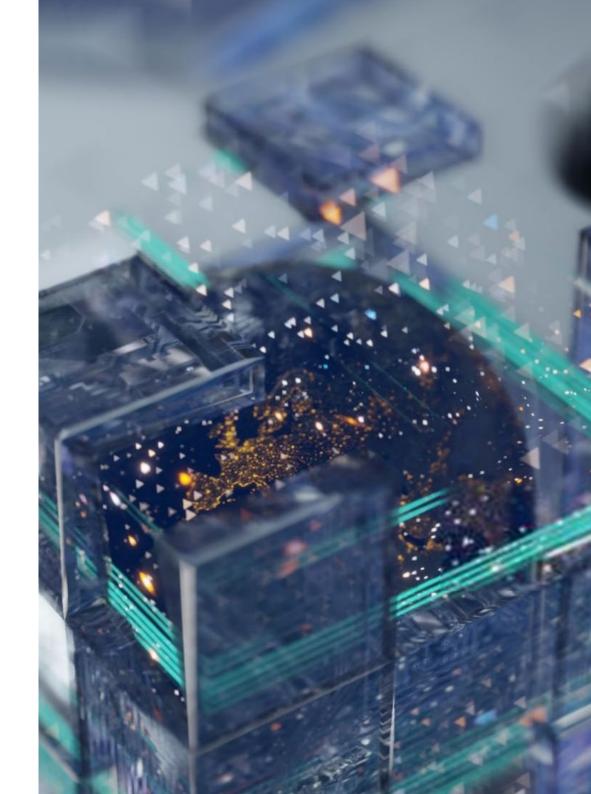
### 06 **General Conditions**

### **Civil Liability Insurance**

This institution's main concern is to guarantee the safety of the students and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the Internship Program period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



#### **General Conditions of the Internship Program**

The general terms and conditions of the internship program agreement shall be as follows:

- 1. TUTOR: During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.
- 2. **DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.
- **3. ABSENCE**: If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

- **4. CERTIFICATION:** Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.
- **5. EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.
- **6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.
- 7. DOES NOT INCLUDE: The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

## 07 Certificate

This **Internship Program in Artificial Intelligence in Design** contains the most complete and up-to-date program on the professional and educational field.

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

In addition to the diploma, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

Title: Internship Program in Artificial Intelligence in Design

Duration: 3 weeks

Attendance: Monday to Friday, 8-hour shifts, consecutive shifts



technological university

**Internship Program** Artificial Intelligence in Design

