

Internship Program

Video Game Programming





tech global
university

Internship Program
Video Game Programming

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01 Introduction

The development of a video game is the longest phase and the one in which companies initially invest the most resources. It is at this key point in the creation of the video game where the role of the programmer is of great importance. A professional profile that is necessary in a game industry that has seen its turnover grow unstoppably. In this scenario, this program provides professionals with a practical internship where they can develop their full potential in creative and development studios that are leaders in the sector. The realization of specific activities with active professionals is a plus, which enriches the student's career path.



Incorporate to your programming knowledge, the latest techniques and programs used by the best specialists"





Behind important titles such as Mario Bros, Final Fantasy or Mega Man there is an excellent team of designers and programmers who have given life to video games that opened the way to an industry, which currently attracts millions of users worldwide. The profile of the programmer is, therefore, highly valued in a growing sector, which requires professionals who master the latest software for the creation of new titles.

That is why TECH has created this Internship Program, which aims to offer students an on-site and 100% practical experience in a leading studio in the field of Video Game Programming. In this first class scenario, the graduate will have the opportunity to progress exponentially in their field, thanks to the specialized team that will guide them at all times.

As a result, graduates who access this Internship Program will be able to apply all their knowledge about the different resources and specific programming languages on different platforms and also expand their technical skills with the help of professionals in the sector who will accompany and tutor them during the 3 weeks of this program. This will give them a more real, authentic and up-to-date knowledge of the gaming industry. An opportunity for career advancement in a field that requires specialization.

“

Enjoy an intensive 3-week internship in a prestigious center and update yourself in the latest software of Video Game Programming in order to grow professionally”

02

Why Study an Internship Program?

TECH has gone a step further in teaching and has developed a program that gives a real answer to the current needs of professionals in Video Game Programming. Therefore, with this idea in mind, TECH has designed a unique and disruptive product in the current educational field. Students will learn firsthand how is the daily work of a first level programmer in the video game industry. During 3 intensive weeks they will be integrated into a specialized work team that will guide them at all times to obtain the necessary technical information to be able to deploy their full potential in this sector. A unique academic opportunity that only this educational institution offers.



TECH gives you the opportunity to surround yourself with the best specialists in the field of Video Game Programming through an internship program of 3 weeks in a first class studio"

1. Updating from the latest technology available

Programming has undergone a major revolution in recent years, allowing in the video game industry to create higher quality titles, online game and expanding the realism of the scenarios where the action takes place. For this reason, and in order to bring students closer to this technology, TECH has created this Internship Program, where they will enter, along with specialists in this field, to the most cutting-edge technology used in the area of Video Game Programming.

2. Gaining in-depth knowledge based on the experience of the best professionals

During this practical experience, students will be tutored by a professional specialized in Video Game Programming. Thanks to this support, graduates will be guaranteed to update their knowledge and broaden their skills. All this will lead to professional growth in a booming sector, through a knowledge that fits the current reality in this area.

3. Entering first-class environments

TECH carefully selects all available centers for Internship Programs. Thanks to this, specialists will have guaranteed access to an up-to-date environment in Video Game Programming. In this way, they will be able to experience the day-to-day work of a demanding area that is constantly being renewed.



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

TECH provides students with a unique educational experience, which moves away from the theoretical concept, in order to provide a strictly practical vision. In this way, knowing and participating in the day-to-day work of programming, they will obtain the knowledge they need to be part of the best creative studios and video game creators.

5. Expanding the boundaries of knowledge

TECH offers students a range of possibilities through this Internship Program, as they can be next to real specialists, who have experience in Video Game Programming in worldwide studios. An excellent opportunity that only TECH, the world's largest online university, can offer.



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

03 Objectives

Upon completion of this Internship Program, students will be able to develop with total professionalism in the field of Video Game Programming. Thanks to the real knowledge in a studio, they will be able to master the different programming languages and methods. They will also gain a thorough knowledge of all the processes that take place in the production phase and will know how to effectively resolve any errors that may occur during the programming of the video game.



General Objectives

- ♦ Master the latest techniques and programs used for Video Game Programming
- ♦ Incorporate into daily work the most effective methods and procedures for the creation of first level online video games
- ♦ Learn the latest developments in the programming language used for the creation of titles



You have the opportunity to improve and absorb all the knowledge provided by this Internship Program. Click now and start making progress"





Specific Objectives

- ♦ Analyze the essential elements of a computer program, such as the different data types, operators, expressions, statements, I/O and control statements
- ♦ Understand the *Backtracking* technique and its main uses
- ♦ Know the different design patterns for object-oriented problems
- ♦ Understand the importance of documentation and testing in software development
- ♦ Manage the use of threading and synchronization, and solve common problems in concurrent programming
- ♦ Understand the function of the operative system and the development kits for mobile devices and video game platforms
- ♦ Discover how a video game engine works and its architecture
- ♦ Choose the most appropriate paradigm and programming languages to program applications applied to video game engines
- ♦ Understand the functioning of semantic reasoners, knowledge-based systems and expert systems
- ♦ Acquire the ability to apply the main bases and techniques in real-time programming
- ♦ Design games and interactive web applications with the corresponding documentation
- ♦ Describe the transmission control protocol/internet protocol (TCP/IP) architecture and the basic operation of wireless networks

04

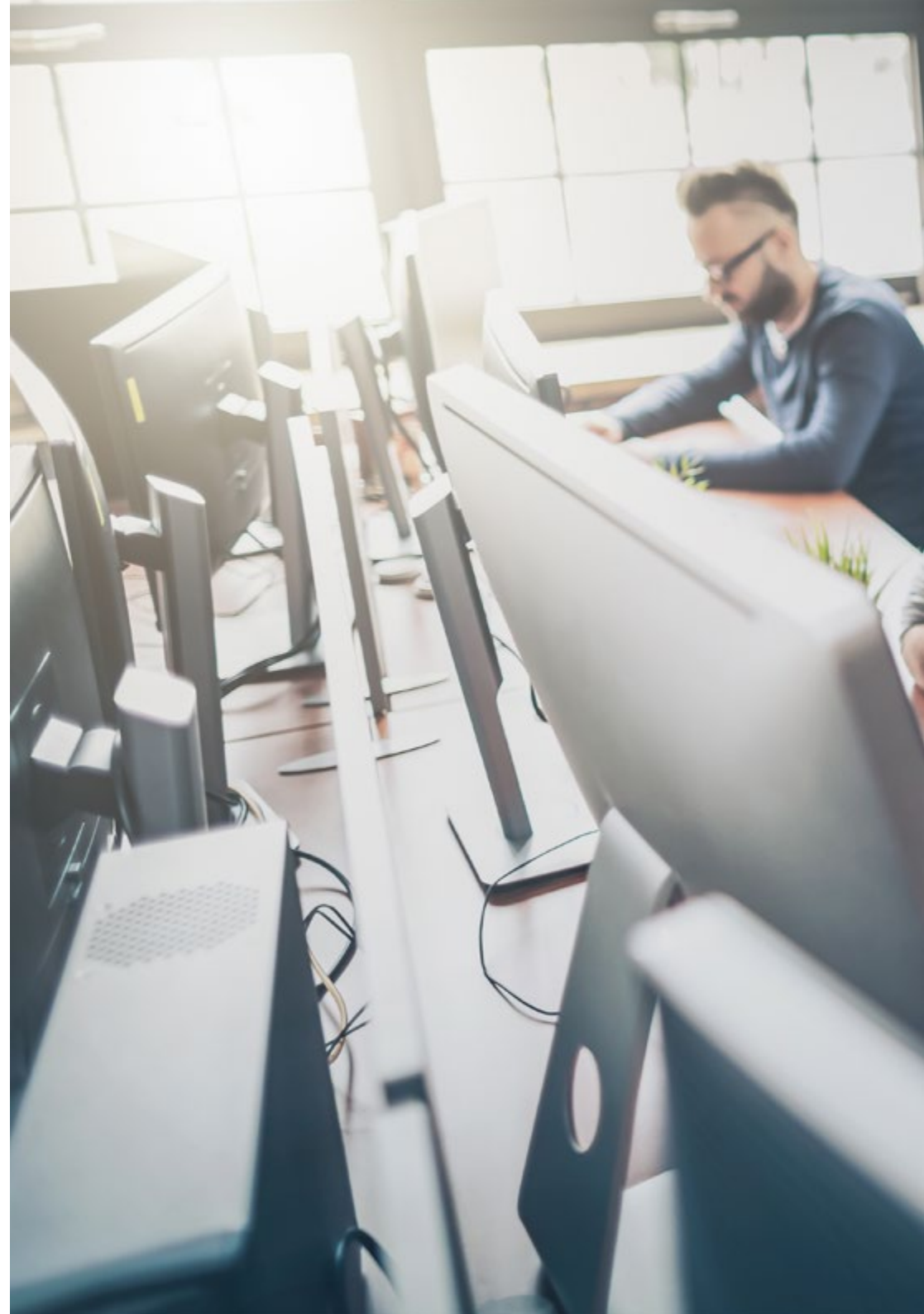
Educational Plan

The Internship Program in Video Game Programming will take place in a relevant studio in the Gaming sector. The students will perfect their skills during the 3 weeks of this Internship Program, in a schedule from Monday to Friday and in 8 hours days, in which they will improve their programming skills side by side.

This stage will allow the students to coordinate with the team of programmers, developers and video game creatives to incorporate their knowledge and, at the same time, acquire an apprenticeship with programming professionals. The mastery of tools, software and programming languages will be the daily routine during this period.

An experience that will add to the professional who seeks to advance in an increasingly competitive and constantly changing labor market. In the Internship Program you can also approach video game projects that are highly demanded by gamers such as multiplayer and network titles or projects in augmented, virtual and three-dimensional reality.

The practical teaching will be done 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 training partners to facilitate teamwork and multidisciplinary integration as transversal competences for the practice of Video Game Programming (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, with the proposed activities being the following:

Module	Practical Activity
Creation of data structure and algorithms	Carry out the Backtracking technique, for the creation of data and algorithms
	Participate in the analysis of algorithms to obtain greater efficiency
	Perform input size and runtime measurement tasks
	Create sorting algorithms with trees, with Heaps, with graphs and with Greedy
Object Oriented Programming	Employ the Factory Pattern, Singleton Pattern, Observer Pattern and Composite Pattern in the creation of objects
	Perform concurrent programming
	Employ locking and communication mechanisms
	Create software documentation and testing
Real-Time Programming	Create and synchronize Threads
	Shader programming
	Implement the pattern in Java and use Java libraries
	Create post-effects
	Process interrupts, synchronization and inter-process communication
Design and development of web games	Web programming with HTML forms
	Use DOCTYPE and innerHTML to develop web games
	Make use of PlayCanvas for web game development
	Set up the web game design and development project

05 Where Can I Do the Internship Program?

In order to offer students a quality education that allows them to advance in the video game industry, TECH has selected a development and creation studio in the sector that is able to respond to the demands of students, while promoting their professional development in one of the fastest growing technology sectors.

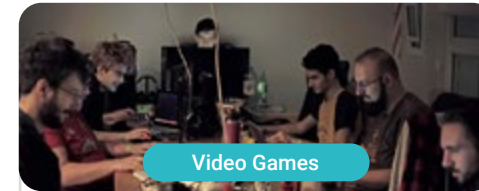


*You will only grow with the best.
Learn in this Internship Programs
from real professionals"*





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



Video Games

Startreming Games

Country	City
Argentina	Mendoza

Management: Route 160 corner Buenos Aires 88, San Rafael, Mendoza, Argentina.

Independent game development studio with remote work.

Related internship programs:

- Video Game Programming
- 3D Hard Surface Modeling

Video Game Programming



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 trainees 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 shall have broad coverage and shall be taken out prior to the start of the practical internship 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 agreement for the program are 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 program will allow you to obtain your **Internship Program diploma in Video Game Programming** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Internship Program in Video Game Programming**

Duration: **3 weeks**

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

Accreditation: **5 ECTS**





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