

Internship Program

Advanced Systems Computing



```
    use
    true

    the end -add back the deselected mirror
    select= 1
    .select=1
    context.scene.objects.active = modifier_ob
    ("Selected" + str(modifier_ob)) # modifier ob is the
    mirror_ob.select = 0
    ob = bpy.context.selected_objects[0]
    ob.select = 1
```



Internship Program
Advanced Systems Computing



Index

01

Introduction

02

Why Study an Internship
Program?

03

Objectives

04

Educational Plan

05

Where Can I Do the
Internship Program?

p. 4

p. 6

p. 14

p. 8

p. 12

p. 14

06

General Conditions

07

Certificate

p. 16

p. 18

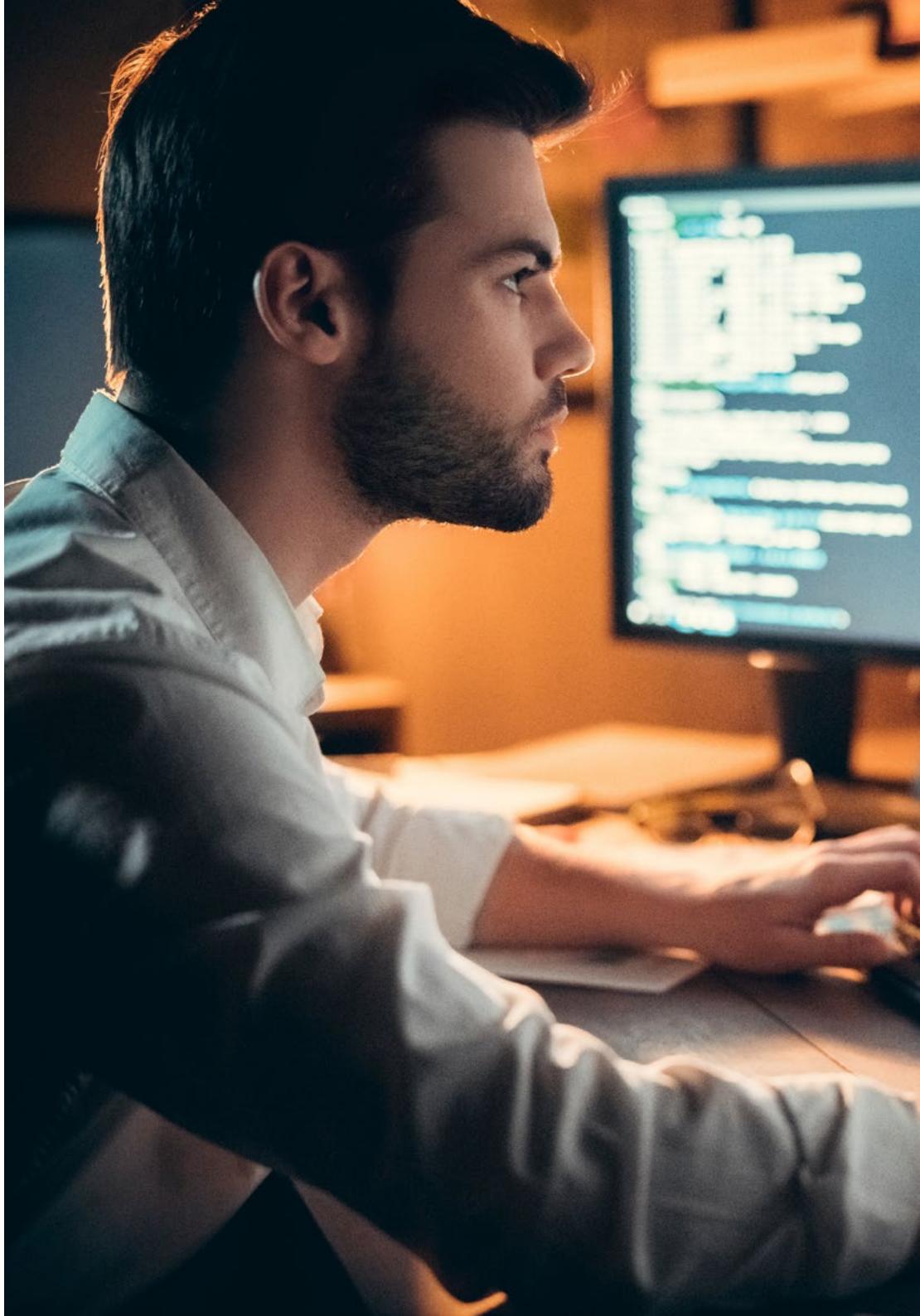
01

Introduction

Advanced Systems Computing is in a phase of rapid transformation, driven by significant technological advances and emerging trends. Indeed, the integration of generative Artificial Intelligence and machine learning is revolutionizing software development, enabling the creation of more intelligent and adaptive systems. In addition, the adoption of cloud computing continues to grow, with a focus on hybrid and multi-cloud models for greater flexibility and cost optimization. For this reason, TECH has created the present qualification, in which in 3 weeks the specialist will be integrated into a team versed in Advanced System Computing, to get up to date on the latest developments and technologies available.

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Thanks to this Internship Program, you will apply your theoretical knowledge on Advanced Systems in real environments, consolidating your learning through practical experiences"



The integration of Artificial Intelligence (AI) and machine learning revolutionize how businesses analyze data and automate processes, improving efficiency and decision making. In addition, mass adoption of cloud computing continues to grow, with platforms such as AWS, Azure and Google Cloud providing scalable and flexible infrastructure. And as the best way to hone these skills is through practice, TECH has designed a program consisting of a 120-hour stay in a benchmark IT company in the field of Advanced Systems.

Therefore, during 3 weeks, the graduate will become part of a team of specialists of the highest level, with whom they will work actively in the development of projects of Advanced Systems in Computer Science. In this way, they will be able to get up to date not only with emerging tools and technologies, but will also be able to implement into their practice skills in areas such as IT project management, implementation of distributed systems and IT security.

Furthermore, during the stay you will have the support of an assistant tutor, who will ensure that the requirements for which this Internship Program was designed are met. Therefore, the computer scientist will work with total guarantee and security in the handling of the most innovative technology, as well as in the use of the techniques and platforms with the best results proven to date.

02

Why Study an Internship Program?

This type of program will enable computer scientists to face concrete technological challenges, develop skills in the use of advanced tools and techniques, and adapt their theoretical knowledge to practical situations. It will also offer a direct immersion in real projects, facilitating the understanding of the complexity and demands of the labor market. In addition, it will provide the opportunity to work with experienced professionals, fostering the development of key competencies such as problem solving, teamwork and effective communication.

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An Advanced Systems Informatics Internship Program is essential for those seeking to consolidate and apply their knowledge in a real and dynamic environment”

1. Updating from the latest technology available

One of the latest emerging technologies in the field of Advanced Systems Computing is quantum computing, which promises to revolutionize the way we process and analyze data. This will allow quantum computers to tackle complex problems at an exponentially faster rate than classical systems, opening up new possibilities in areas such as cryptography, simulation of molecules for drug development and optimization of logistics systems. In addition, recent advances, such as IBM's and Google's developments in quantum computing, are paving the way for their integration into practical applications.

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

The large team of professionals that will accompany the specialist throughout the practical period is a first-class and an unprecedented guarantee of updating. With a specifically designated tutor, the student will be able to work on real projects, in a state-of-the-art environment, which will allow them to incorporate the most effective procedures and tools in Advanced Systems into their daily practice.

3. Entering first-class professional environments

TECH carefully selects all available centers for Internship Programs. Thanks to this, specialists will have guaranteed access to a prestigious clinical environment in the field of Advanced Systems. In this way, they will be able to experience the day-to-day of a demanding, rigorous and exhaustive area of work, always applying the latest techniques in their work methodology.

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

The academic market is plagued by teaching programs that are poorly adapted to the daily work of the specialist and that require long teaching hours, often not very compatible with personal and professional life. TECH offers a new learning model, 100% practical, that allows you to get ahead of state-of-the-art procedures in the field of Advanced Systems and, best of all, to put it into professional practice in only 3 weeks.

5. Opening the door to new opportunities

As disruptive technologies such as Artificial Intelligence, machine learning and cloud computing emerge, professionals skilled in Advanced Systems will apply these advances to solve complex problems and optimize processes in various industries. As such, the ability to adapt to these new technologies will not only expand their career opportunities, but also enable them to create innovative and strategic solutions that can transform entire industries.

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

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Objectives

The objectives of this program will be to provide professionals with direct and applicable experience in the use of advanced technologies and in the resolution of complex real-world problems. In this way, the theoretical knowledge acquired will be consolidated with solutions in real projects, allowing computer scientists to experience the challenges and dynamics of the work environment. In addition, they will develop skills in areas such as distributed systems management, advanced programming and computer security, fostering their ability to adapt and apply specialized methodologies and tools.



General Objectives

- Apply theoretical knowledge in practical and real situations in the technological field
- Develop skills in the implementation and management of advanced IT tools
- Solve complex technical problems using current methodologies and techniques
- Work on real projects to gain practical experience in the management of advanced systems
- Adapt to the challenges of the work environment through the application of emerging technologies





- ♦ Improve teamwork skills and effective communication in professional contexts
- ♦ Use innovative solutions to address specific problems in advanced systems computing
- ♦ Integrate and manage distributed systems and cloud architectures in real-world projects
- ♦ Develop and implement IT security strategies in practical environments
- ♦ Evaluate and optimize the performance of applications and systems using advanced tools

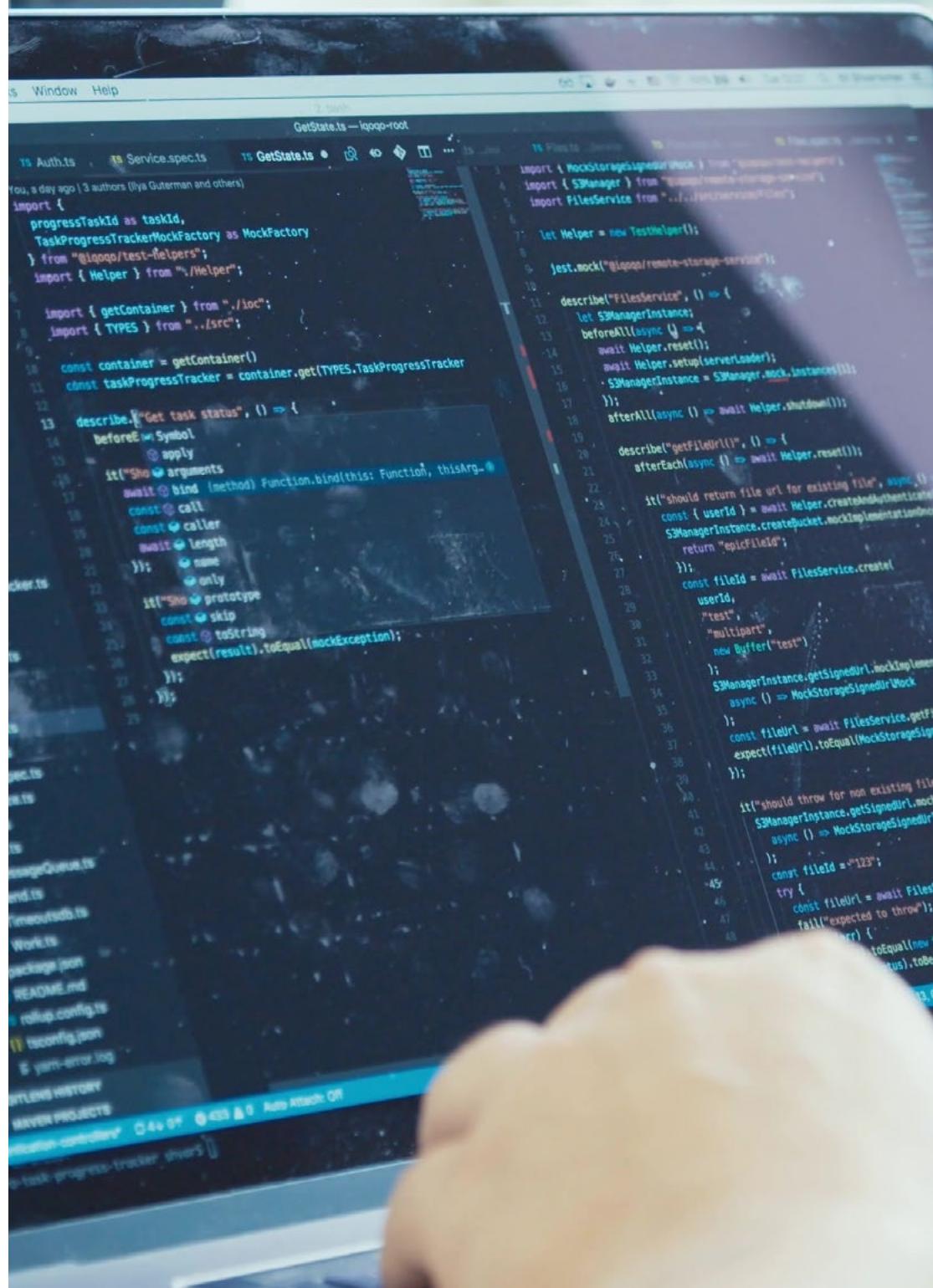
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The program objectives will focus on providing you with hands-on, applied experience in the field of advanced technology. With all the TECH quality guarantees!"



Specific Objectives

- Implement IT project management solutions using advanced tools and methodologies
- Develop and test applications in distributed systems environments
- Configure and manage cloud computing platforms for specific projects
- Apply cybersecurity techniques to protect data and systems in real-world environments
- Design and execute artificial intelligence use cases in practical projects
- Perform Big Data analytics for decision making and predictive model generation
- Integrate emerging technologies, such as quantum computing, into practical applications
- Develop and test IoT solutions for real-world applications
- Evaluate and optimize the performance of systems and applications on mobile devices
- Implement and manage microservices architectures in distributed systems projects
- Apply machine learning techniques to solve specific problems in practical projects
- Use virtualization and containerization tools in software development
- Design and implement data backup and recovery strategies in advanced systems



The screenshot shows a code editor with a dark theme, displaying a file named 'GetState.ts'. The code is a Jest test for a 'FileService' implementation. It imports 'MockStorage', 'S3Manager', and 'FileService' from external modules. It uses 'MockFactory' to create a 'TaskProgressTracker' and a 'Container'. The test includes 'describe' blocks for 'Get task status' and 'getFileUrl'. It uses 'beforeEach', 'it', 'expect', and 'done' functions. The code editor interface includes tabs for 'Auth.ts', 'Service.spec.ts', and 'GetState.ts', and a sidebar with file navigation.

```
GetState.ts - iopqa-root
You, 1 day ago | 3 authors (Ilya Guterman and others)
import {
  progressTaskId as taskId,
  TaskProgressTrackerMockFactory as MockFactory
} from "@iopqa/test-helpers";
import { Helper } from "./Helper";
import { getContainer } from "./ioc";
import { TYPES } from "../src";
const container = getContainer();
const taskProgressTracker = container.get(TYPES.TaskProgressTracker);
describe("Get task status", () => {
  beforeEach();
  it("Should arguments", () => {
    const @Symbol apply
    it("Should arguments", () => {
      await @bind (method) Function.bind(this: Function, thisArg: any, ...args: any[])
      const @call call
      const @caller caller
      await @length length
    });
    it("Should prototype", () => {
      const @name name
      const @only only
      const @prototype prototype
      const @skip skip
      const @toString toString
      expect(result).toEqual(mockException);
    });
  });
});
describe("getFileUrl()", () => {
  beforeEach();
  it("Should return file url for existing file", () => {
    const { userId } = await Helper.createAuthenticatedUser();
    S3ManagerInstance.createBucket.mockImplementationOnce(() => {
      return "epicFileId";
    });
    const fileId = await FileService.createFile(userId, "test", "multipart", new Buffer("test"));
    S3ManagerInstance.getSignedUrl.mockImplementationOnce(() => {
      return fileId;
    });
    const fileUrl = await FileService.getFileUrl(fileId);
    expect(fileUrl).toEqual("http://localhost:4000/test/epicFileId");
  });
  it("Should throw for non existing file", () => {
    S3ManagerInstance.getSignedUrl.mockImplementationOnce(() => {
      return null;
    });
    const fileId = "123";
    try {
      const fileUrl = await FileService.getFileUrl(fileId);
      fail("expected to throw");
    } catch (err) {
      expect(err).toEqual(new Error("File not found"));
    }
  });
});

```

- Collaborate in the creation and documentation of lessons learned reports for projects
- Develop skills in integrating systems and platforms from different cloud vendors
- Perform performance and scalability testing on distributed systems applications
- Apply agile development techniques to manage and fine-tune projects in changing environments
- Evaluate and apply privacy and data protection standards in Big Data projects
- Develop skills in the creation of user interfaces and user experiences in mobile applications
- Implement incident management and cyber-attack response solutions in real-world environments

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Strengthen your competency in collaboration and communication within teams, preparing you to address technology issues and adapt to emerging industry trends"

04 **Educational Plan**

The Internship Program of this program in Advanced Systems Computing consists of a practical internship in a leading company in this field, lasting 3 weeks, from Monday to Friday, with 8 consecutive hours of practical training, always together with an assistant specialist. Therefore, this internship will allow the graduate to work on real projects alongside a team of professionals of reference in the area of Advanced Systems Computing, applying the most innovative and specialized procedures and tools.

In this completely practical Internship proposal, the activities are aimed at developing and perfecting the competencies necessary for the development of projects of Advanced Systems areas and conditions that require a high level of qualification, and are oriented towards specific training for the practice of the activity. It is, without a doubt, an opportunity to learn by working.

The practical part will be carried out with the participation of Activate the student performing the activities and procedures of each competence area (learning to learn and learning to do).

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 that facilitate teamwork and multidisciplinary integration as transversal competences for the praxis of computer science (learning to be and learning to relate).

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

Module	Practical Activity
Project Management	Develop IT project management plan, including schedule, resources and budget
	Identify and analyze project requirements to develop effective business cases
	Apply agile and traditional project management methodologies using specialized tools
	Monitor and control project progress, ensuring adherence to established objectives and timelines
Software Development	Design and develop software solutions based on project requirements and specifications
	Deploy and test applications in different environments, ensuring product quality and functionality
	Integrate software tools and emerging technologies into the development process
	Document the development process and the results obtained, including manuals and user guides
Distributed Systems and Cloud Computing	Analyze and design distributed system architectures to improve performance and scalability
	Implement cloud solutions, configuring and managing resources on platforms such as AWS, Azure, or Google Cloud
	Evaluate and apply virtualization and containerization techniques in the context of distributed systems
	Optimize the use of cloud resources, including cost management and availability assurance
Technology Assessment	Research and analyze the latest emerging technologies in the IT field and their applicability in projects
	Evaluate the impact of new technologies on existing systems and propose solutions for their integration
	Perform comparative testing of different tools and platforms to determine the most appropriate for each need
	Participate in the implementation and evaluation of new technologies within the organization, contributing to innovation and continuous improvement

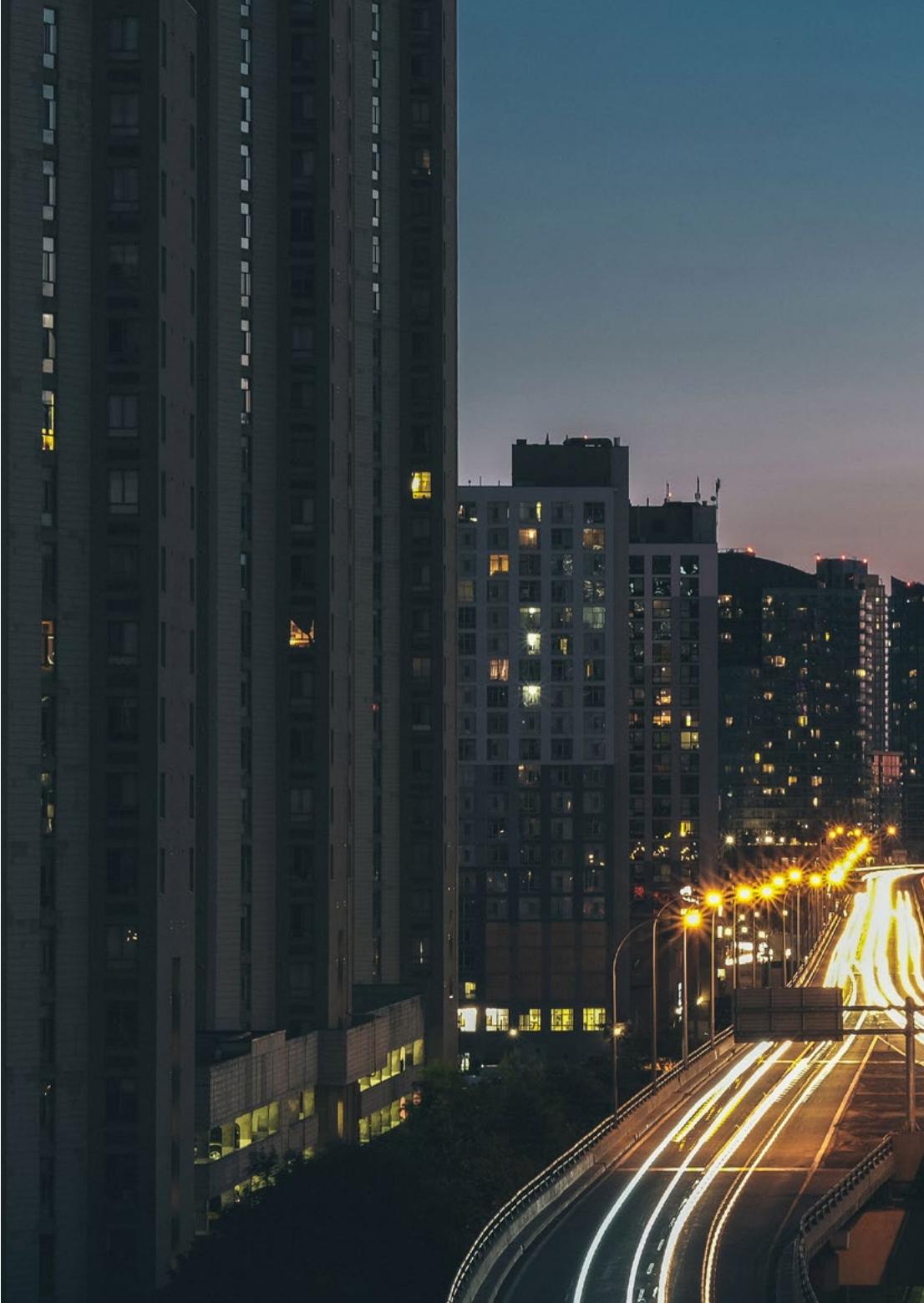
05

Where Can I Do the Internship Program?

In its maxim of offering quality education within the reach of most people, TECH has decided to broaden the academic horizons so that this training can be given in various companies around the world. Therefore, this is a unique opportunity that will allow the professional to continue to grow their career alongside the best specialists in the sector in various leading organizations.

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The activities of this Internship Program will include network configuration, database management implementation of cybersecurity solutions and systems optimization, among others"





Advanced Systems Computing | 15 **tech**

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



IT specialist

**Colegio Territorial
de Arquitectos de Alicante**

Country

Spain

City

Alicante

Address: Plaza Gabriel Miró, nº 2,
03001 Alicante

Represents and supports professionals in Alicante, ensuring
that they have the necessary resources.

Related internship programs:

- Event Organization
- Digital Product Design (UX/UI)

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

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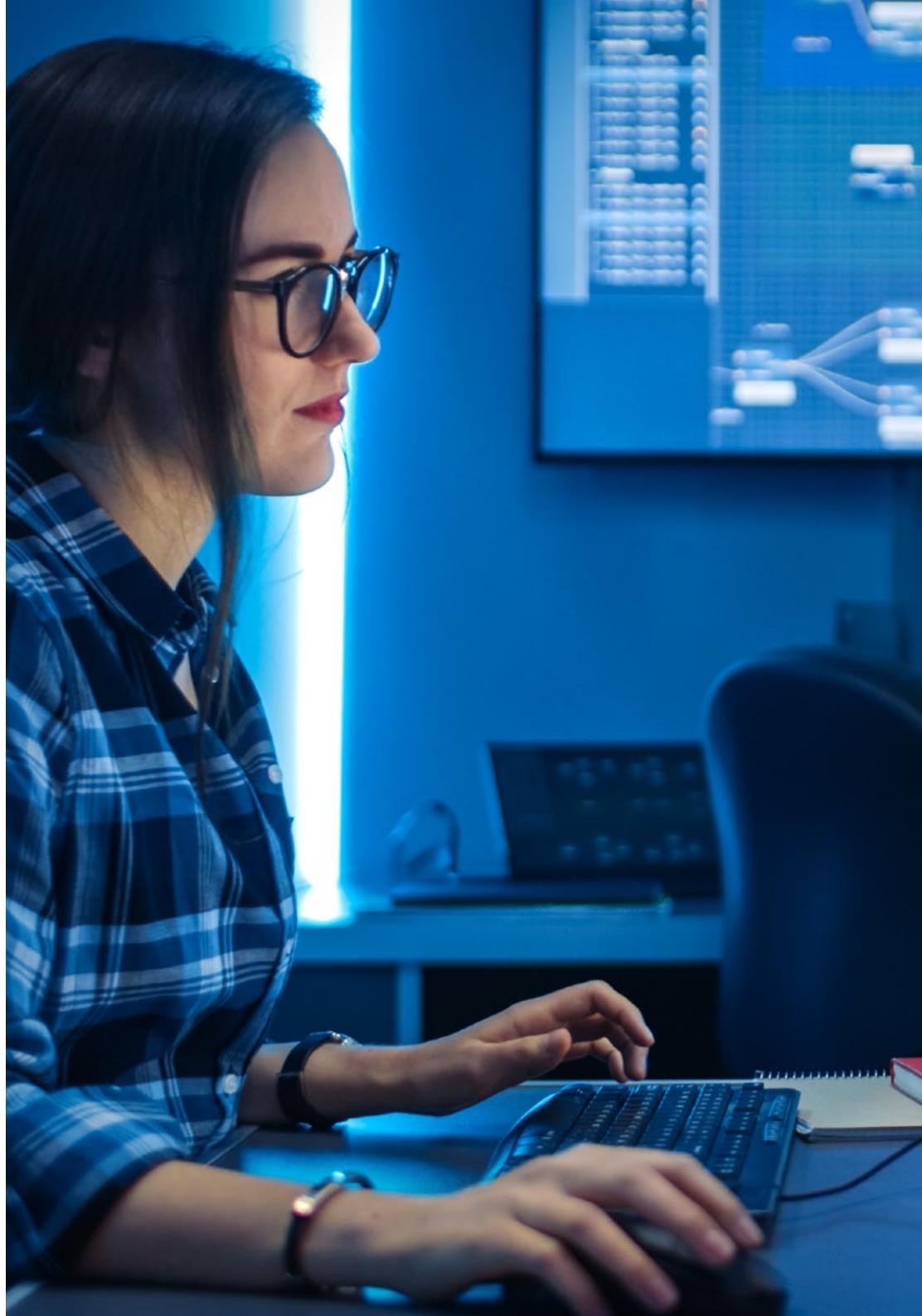
General Conditions

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 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 agreement for the program are as follows:

1. TUTOR: During the Internship Program, students will be assigned 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 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 student 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 Advanced Systems Computing** contains the most complete and up-to-date program in the professional and academic landscape.

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

The diploma issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Advanced Systems Computing**

Duration: **3 weeks**

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



tech technological university

Internship Program

Advanced Systems Computing

Internship Program

Advanced Systems Computing

```
        name += DateUtils.format(etr.getDate(settings[0]), "dd/MM/yyyy");
    } else if (settings[0].compareTo("n") != 0) {
        if (name.compareTo("") != 0) {
            name += " - ";
        }
        name += DateUtils.format(etr.getDate(settings[0]), "dd/MM/yyyy");
    }
}
```