CIT
CANADIAN INSTITUTE OF TECHNOLOGY

BACHELOR PROGRAM

—

ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

www.cit.edu.al

OUR **BACHELOR** PROGRAMS

Canadian Institute of Technology offers high quality educational programs ranging from Bachelor in Business Administration, Business Administration and IT, Finance & Accounting, Software Engineering, Telecommunication Engineering, Computer Engineering & IT, Robotics & Mechatronics Engineering and Electronics Engineering. Designed for students interested in pursuing a career in these fields, you will get a start in the job market, and may gain exemptions from professional qualifications.

You will develop a professional understanding of these programs, applicable to real world jobs.

Canadian Institute of Technology commits on delivering quality education through its highly qualified domestic academic staff with teaching experience abroad as well as international academic staff.

Study with McGraw Hill, one of the biggest educational publishers in the world.

Improve your English skills and increase employment opportunities by gaining access to an international career.

A connected and supportive network

Teaching process is based on the best international educational practices, empowering graduates with creative, innovative, entrepreneurial skills, and a passion for knowledge.

WHY BACHELOR IN
ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

The Bachelor study program in "Artificial Intelligence and Data Science" has the mission of offering a well-constructed curriculum for first-cycle students, which, in addition to providing knowledge, optimizes the knowledge-practice binomial and produces students prepared for the labor market, or to continue their studies in the second cycle, and then the third cycle.

Artificial Intelligence has already surpassed human performance in areas such as cancer detection, lip reading and speech recognition and many other areas. Every day we hear more and more that AI has managed to be involved in processes from the simplest ones, such as applications that process and reprocess photos, to voice-to-text conversions, or vice versa, to multimedia and news delivery, or even in fields related to science, such as data processing, their analysis, detections, predictions, etc.

Knowledge is essential to modern society. Smart circuits help companies keep track of goods and manage supplies and stocks. New high-tech communication devices, such as cell phones, navigation instruments, and digital cameras, are greatly enhanced by intelligent software, and engineers have strived to make the technology as simple to use as possible and widely usable by all. age groups, knowledge levels, or distribution in different regions in almost the entire globe.

Students pursuing the Bachelor in Artificial Intelligence and Data Science will study methods to approach new challenges in these important fields. They will generate new knowledge by gathering and sorting valuable information, using mathematics, statistics, probabilities, algorithms and intelligent computer techniques. The knowledge they will gain can be used to make decisions or solve problems efficiently.
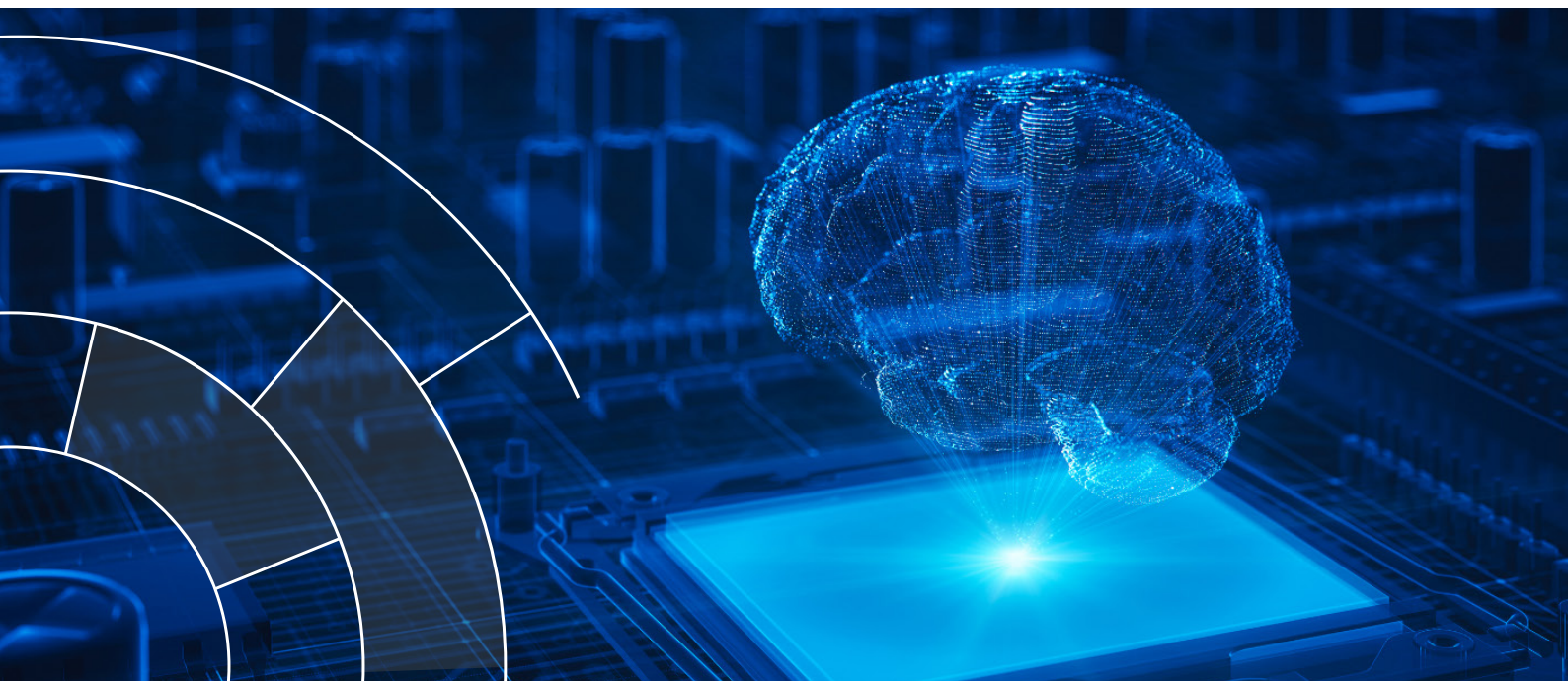
TARGET SKILLS

- Skills in analytics and technology,

- Mastering large datasets,

- Machine learning, and complex modelling,

- Statistics and probability skills,

- Optimization methods,

- Data analysis and modeling,

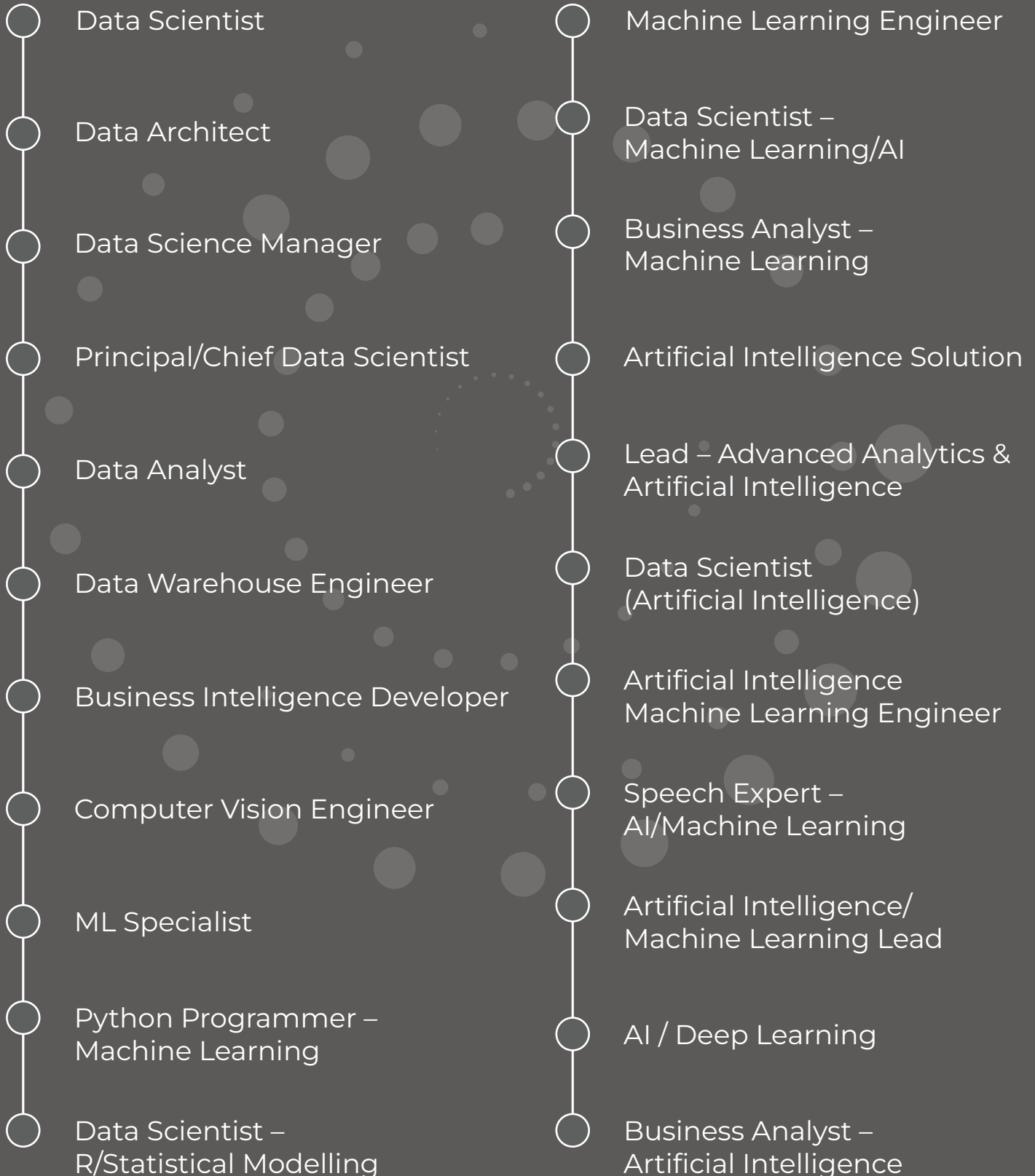- Data visualization,

- Programming skills,

- Big data processing tools.

Through internships or apprenticeships, students develop meaningful professional experience, contributing to their career progression.

TYPICAL CAREER OPPORTUNITIES

- Data Scientist
- Data Architect
- Data Science Manager
- Principal/Chief Data Scientist
- Data Analyst
- Data Warehouse Engineer
- Business Intelligence Developer
- Computer Vision Engineer
- ML Specialist
- Python Programmer – Machine Learning
- Data Scientist – R/Statistical Modelling

- Machine Learning Engineer
- Data Scientist – Machine Learning/AI
- Business Analyst – Machine Learning
- Artificial Intelligence Solution
- Lead – Advanced Analytics & Artificial Intelligence
- Data Scientist (Artificial Intelligence)
- Artificial Intelligence Machine Learning Engineer
- Speech Expert – AI/Machine Learning
- Artificial Intelligence/ Machine Learning Lead
- AI / Deep Learning
- Business Analyst – Artificial Intelligence

BACHELOR IN
ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

First Year

FIRST SEMESTER COURSES

- Academic Reading and Writing
- Introduction to Economics
- Calculus I
- Computer Applications
- Elective Subject

Choose one of:
- Internet Technologies
- Engineering Chemistry
- E-commerce and Innovation
- Digital Society

SECOND SEMESTER COURSES

- Computer Science Fundamentals
- Introduction to Statistics
- Linear Algebra
- Computer Communications and Networks I
- Physics I

Second Year

THIRD SEMESTER COURSES

- Fundamentals of Programming I
- Algorithms and Data Structures
- Fundamentals of Artificial Intelligence and Machine Learning
- Applied Logic and Theory of Computer Science
- Calculus II

FOURTH SEMESTER COURSES

- Fundamentals of Programming II
- Software Architecture and Systems
- Probability and Random Processes
- Fundamentals of Data Analytics
- Data Visualisation

Third Year

FIFTH SEMESTER COURSES

- Database Systems
- Natural Language Processing and Deep Learning
- Artificial Intelligence and Expert Systems
- Security Engineering
- Research Methods

SIXTH SEMESTER COURSES

- Large-Scale Data Analysis and Distributed Database Systems
- Pattern Recognition and Image Analysis
- Elective Subject

Choose one of:
- Introduction to Operating Systems
- Artificial Intelligence and Cybersecurity
- Cryptography & Network Security

• Internship

The Internship Course takes place in the third year of bachelor studies, spanning 4 weeks (120 hours) and earning 6 ECTS credits. It offers practical experience in real-world scenarios, enhancing critical thinking, innovation, and design skills. Through collaboration with professionals, students learn to address challenges, meet objectives, and explore novel ideas in commercial devices, systems, or software. The internship should align closely with their field of study.

Objectives of the Internship Course:
a. Bridge the gap between theory and practical implementation.
b. Cultivate skills within a professional work environment.
c. Provide valuable job market experience.
d. Contribute to market-related opportunities.

• Thesis

The undergraduate diploma thesis is an integral part of the final semester of the program. It is valued at 6 credits in the first cycle academic and professional higher education study program in Artificial Intelligence And Data Science.

The diploma thesis can be prepared at the same time as other study requirements are completed in the third year, and the submission and defence of the diploma thesis is the final component of first cycle studies.

Theses is the ultimate obligation of the student to get a diploma at the end of the study program. It is an individual research work, which the student performs during the last year of the studies. The thesis can guide their master's studies and career as well.

HOW TO APPLY

Bachelor's Programs (National Students)

The first step to become a student at CIT is to complete the application form, which is available at **www.cit.edu.al**. An Admissions Officer will then contact you to provide further details about the pre-registration process and the required documents for this stage.

NOTE: Completing the A1/A1Z form on e-Albania portal and the online form in U-Albania portal are fundamental steps for your enrollment.

Admission Criteria
To be admitted to the bachelor's study programs, the candidate must have:
· Successfully completed high school;
· A high school GPA of 6.5 and above;
· Demonstrated English language proficiency at the B1 level
  or higher.

All high school students must include University College "Canadian Institute of Technology" as one of their 10 choices in the U-Albania System to register at our university.

SCAN ME

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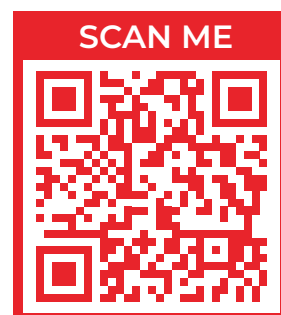
Bachelor's Programs (International Students)

The first step to become a student at CIT is to complete the application form, which is available at **www.cit.edu.al**. An Admissions Officer will then contact you to provide further details about the pre-registration process and the required documents for this stage.

Admission Criteria
To be admitted to the bachelor's study programs, international candidates must meet the following requirements:
· Hold a high school diploma recognized by the Albanian Education Service Center;
· A high school GPA of 6.5 and above;
· Demonstrated English language proficiency at the B1 level
  or higher.

International students are required to apply to the Albanian Education Service Center (QSHA) for the recognition of their high school diplomas.

SCAN ME

CIT

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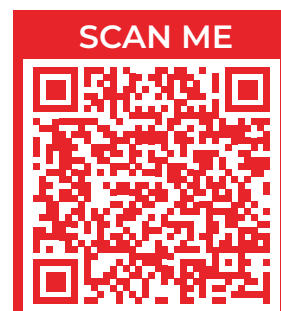
OPEN YOUR DOOR TO THE WORLD

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