





We build the  
future, not just  
imagine it!



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Engineering means real solutions  
that change people's lives!



# Educational offer

## **Bachelor, 4 years (Romanian and English)**

Computer Science

## **Master, 2 years (Romanian and English)**

### **Computer Science in English**

Artificial Intelligence and Vision

Data Science

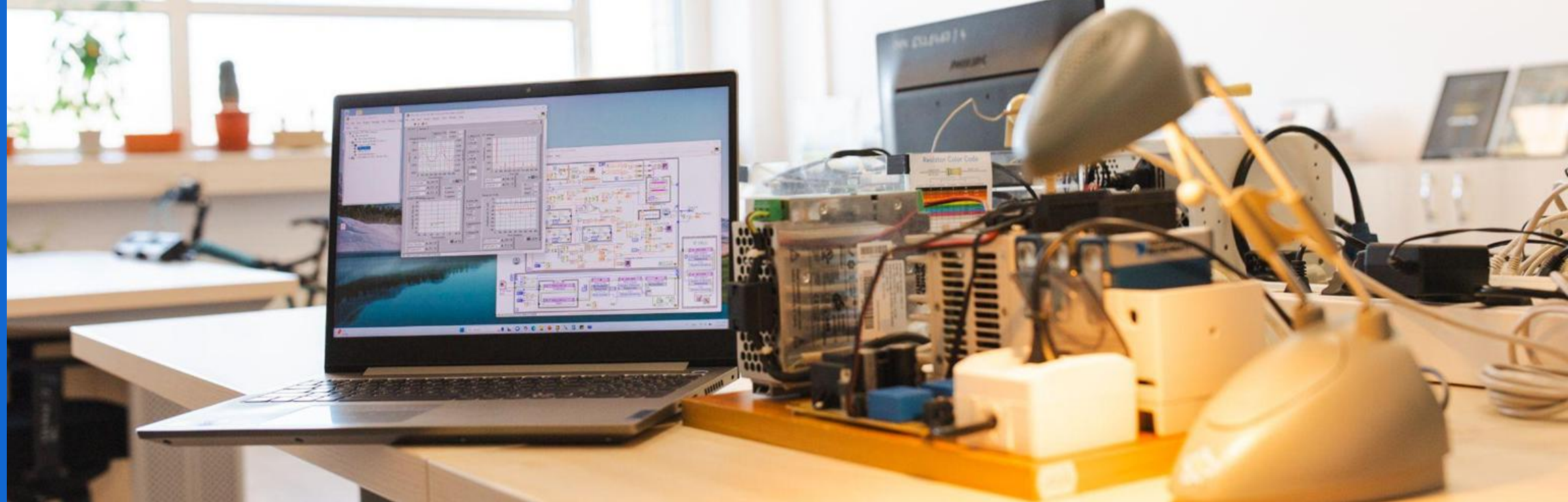
Cybersecurity Engineering

## **PhD, 4 years**

Research

## Research groups

1. Knowledge Engineering Group
2. Intelligent Systems Group
3. Image Processing and Pattern Recognition Research Center
4. Security Laboratory for Defense and Cyberattack Resilience
5. Distributed Systems Research Laboratory
6. Computer Graphics and Interactive Systems Laboratory
7. Research Laboratory in Networks and Communication Protocols
8. Dedicated and Embedded Computing Systems Laboratory
9. Fundamentals of Software Technologies



# Computer Science

and

# Information Technology

**Design and development**  
(research oriented)

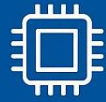
in Romanian and English

**Configuration and administration**  
(application level)

in Romanian



Artificial intelligence



Computer architecture



Data structures and algorithms



Computer-aided graphics



Design with microprocessors



Functional programming



Fundamental algorithms



Fundamental programming



Fundamental programming



Intelligent systems



Mathematics in engineering



Software design



Object oriented programming



Software engineering



Operating systems



Software engineering



Software engineering



Structure of computer systems

# Computer Science

and

# Information Technology

**Fundamental**

**and**

**Specialized/Optional courses**



Cryptology



Image processing



Management and communication



Parallel and distributed computing



Pattern recognition systems



Robot control systems



Real-time systems



Volunteering



# Student Opportunities



## MICROSOFT Center



## Department Research Projects



## Cisco Academy



## Student Competitions

- ACM International Collegiate Programming Contest (ACM ICPC)
- Computer Science Students Conference
- SEEMOUS – South Eastern European Matematical Olympiad for University Students
- International Internet Mathematic' Olympiad – Ariel University, Israel
- National Student Mathematics Contest "TRAIAN LALESCU"

https://how-to-faaang-utcen.netlify.app

## How to FAANG - UTCN Guide

Overview Amazon Guide Bloomberg Guide Goldman Sachs Guide Google Guide Jane Street Guide Microsoft Guide Optiver Guide Revolut Guide

### How to FAANG · [Discord icon]

This is a full guide on how to get into a **prestigious, well-paid, international company** from UTCN (or any Romanian college for that matter). The goal is to maximize the number of students who get offers at FAANG companies. The term FAANG originated from big tech giants (Facebook, Amazon, Google, etc), but is now more of an umbrella term for prestigious companies. This guide goes through the full process of building and writing a strong CV that passes the screening, solving online assessments, nailing your interviews and finally getting an offer. We present both generic and company-specific info, as well as **recent real-life stories** with both successes and failures and how ridiculous the market can be sometimes. Enjoy.

If you want CV review, have questions or need any kind of help, feel free to join the [discord server](#). If you want to contribute to this resource, feel free to leave a PR of issue [at this repository](#).

#### Table of Contents

- Why Faang?
  - Pros & Cons
  - FAANG interns rejected by local companies
  - Mandatory motivational speech
- How to Faang from UTCN
  - Application Screening
    - How to have great achievements (By Alexander Th
  - Online Assessments (OA)
  - Interviews (Technical / Behavioral)

faaNG

∞ a Microsoft Apple A



Student Competitions

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Come  
join the  
Best!

### **Programming**

ACM, Cybersecurity  
CTFs, AI@UTCN

### **Robotics**

IoT Student Challenge,  
BattleLab Robotica

### **Automotive**

STUDENT Formula,  
Solis

### **Hackathons**

PoliHack, CODERUN

**...and more**

Entrepreneurship and Volunteering

# Entrepreneurship and Student Organizations



- **Networking Events with Entrepreneurs**

- **Access to Start-up Incubators**

- **Business and Pitching Trainings**



# Artificial Intelligence Research Institute

Advancing research, innovation, and exploration in the field of artificial intelligence at the Technical University of Cluj-Napoca

- AI-powered research
- AI theory and practice





Bachelor

# Bachelor thesis examples

## Facial recognition platform

Response time under 1 second, 97% accuracy



## Cybersecurity system for WiFi and IoT networks

Attack blocking with over 95% accuracy



## Machine learning app for weather prediction

Reduces prediction errors by 30%





# Mobilities and Internships

*Universitatea Tehnică din Cluj-Napoca  
este membră în alianța europeană*

EUROPEAN UNIVERSITY OF TECHNOLOGY – Eut+



**3 months mandatory (with credits) internship**

- **Romania**
- **Abroad**

## THE EUT+ EUROPEAN DEGREES

Studying at the European University of Technology EUT+ is a decisive experience in the life of all students and learners. It provides them with the practical and theoretical foundations needed to navigate a complex and changing environment:

- a recognised qualification for the labour market
- a European network of peers
- intellectual and cultural curiosity
- open-mindedness and civic values.

**9 CAMPUSES, 1 EUROPEAN UNIVERSITY, 1 DEGREE**



UNIVERSITÀ DEGLI STUDI  
DI CASSINO E DEL  
LAZIO MERIDIONALE



# Mobilities and Internships

## COLABORĂRI PRIN PROGRAMUL ERASMUS+

### CEHIA

- Czech Technical University

### PORTUGALIA

- Universidade do Minho

### BELGIA

- Gent University

### GERMANIA

- Universität Bremen

### SPANIA

- Universitat Politècnica de Catalunya

### UNGARIA

- Obuda University

### POLONIA

- State Higher Vocational School

### FRANȚA

- Université de Lorraine
- Université Polytechnique Hauts-de-France

### OLANDA

- Technische Universiteit DELFT

ABSOLVENȚII AU CONTINUAT  
STUDIILE LA UNIVERSITĂȚI  
DE PRESTIGIU



Career











# Career Opportunities, Employers and Internships



and more 

# Upon graduating

You will be able to hold a position as

-  Software engineer
-  Embedded /  IoT engineer
-  AI/ML engineer
-  Programmer
-  System/cloud engineer
-  Network engineer
-  Cybersecurity analyst
-  DevOps
-  Researchers

You will be able to continue your studies:

-  Master's degree
-  PhD

and more 



# Career





# Success Stories of our graduates



**Prof. Doina Precup**

McGill University, Montreal,  
Canada  
Senior Member of the Canadian  
Institute for Advanced Research  
Canada Research Chair in  
Machine Learning (ML)  
**Leads Google DeepMind,  
Montreal**



**Prof. Radu Grosu**

Technical University of  
Vienna, Department of  
Computer Engineering  
Leads the Cyber-Physical  
Systems Group  
**Member of LiquidAI,  
valued at 2 billion USD**



**Dr. Daniel Marcu**

PhD in Science from the  
University of Toronto,  
Canada  
Director of Strategic  
Initiatives at the Information  
Sciences Institute, University  
of Southern California, USA  
**Director of Applied  
Sciences, Amazon, USA**



**Dr. Sergiu Nedevschi**

PhD in Science from the  
University of California,  
Berkeley  
**Co-founder and Chief  
Scientist of Tarana Wireless,  
valued at 1 billion USD**



**Eng. Andrei Dunca**

Co-founder and Chief  
Technology Officer of Trilulilu  
**Co-founder of LiveRail –  
acquired by Facebook for 500  
million USD**  
Co-founder of Eventmix



**Dr. Radu Banabic**

PhD at Ecole Polytechnique  
Federale de Lausanne  
**Co-founder and Vice President  
of Engineering at Cyberhaven,  
valued at 1 billion USD**

# COMPUTER SCIENCE

Department

[cs.utcluj.ro](http://cs.utcluj.ro)