# Iulian Oleniuc

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☑ iulian.oleniuc@gmail.com

github.com/gareth618

## **Education**

#### Master's Degree

2023-2025

**Institution:** Faculty of Computer Science Iași **Program:** Advanced Studies in Computer Science

## Bachelor's Degree

2020-2023

Institution: Faculty of Computer Science Iasi

Thesis: In my undergraduate thesis, "Heuristic Optimizations for Boolean Formulas with Applications in Attribute-Based Encryption," I developed four heuristics to optimize monotone Boolean formulas. These optimizations enhanced the performance of a circuit-based KP-ABE scheme by up to 60% in real-world scenarios. A paper on this work was accepted at the KES 2023 conference.

## **High School**

2016-2020

Institution: Colegiul Național "Emil Racoviță" Iași

Specialization: Mathematics-Informatics

## **Contests**

## **Algorithms**

**High School** 

National Olympiad in Informatics: Participation (9th grade), Bronze (10th grade), Silver (11th grade), Qualification (12th grade)
Cloudflight Coding Contest (School): 1st place (11th grade), 2nd place (12th grade)

## **Algorithms**

College

Cloudflight Coding Contest (Classic): 1st place (1st year of BSc) ICPC Regional Contest Iași: 1st place (3rd year of BSc)

## Miscellaneous

All-Time

Cloudflight Coding Contest (AI): 1st place (3rd year of BSc), 1st place (1st year of MSc)

InfoEducație County Contest: 2nd place (11th grade)



# Languages

- Romanian Native
- English Advanced

## Skills

- Problem solving
- Teaching
- · Technical writing
- Teamwork
- Critical thinking

# Knowledge

- Algorithms
- Data structures
- Cryptography
- Machine learning
- Neural networks
- Web developing
- Relational databases
- Object-oriented programming

# **Technologies**

- C++, Java, Python
- HTML, CSS, JavaScript
- React, Vue
- Gatsby, Nuxt, Astro
- FireBase, SupaBase
- PostgreSQL

## **Passions**

- Cycling
- Books
- Movies
- Hip-hop

## **Publications**

#### LSSS Limitations Over Boolean Circuits

2025

A paper co-authored with Alex Ioniță, published in CSJM, 33(1), 2025. It offers a gentle introduction into the realm of monotone span programs, linear secret sharing schemes, and attribute-based encryption.

## **Boolean Circuit Optimizations for ABE**

2023

A paper co-authored with Alex Ioniță and Denis Banu, published at the KES 2023 conference. It introduces four heuristics for optimizing Boolean circuits in key-policy attribute-based encryption schemes.

# **Projects**

## InfoGenius.ro — Computer Science Blog

2017-2025

I founded InfoGenius in the 9th grade and have since written posts on topics such as famous algorithms, data structures, C++ programming, and National Olympiad problems, among others. With over 300 comments, the website has made a meaningful impact in helping people learn computer science, particularly in competitive programming.

## InfoGym — Teaching Computer Science

2022-2025

InfoGym is a programming circle founded by eMAG as part of the "Hai la Olimpiadă!" program, where I have delivered several lectures to middle and high school students. This involved creating instructional papers, including "Introduction to Combinatorics" and "Trie & the Knuth-Morris-Pratt Algorithm," which are among my proudest works.

#### FIICode — Organizing a Programming Contest

2021-2024

FIICode is a programming contest organized by students of the Faculty of Computer Science Iași. I contributed to the organizing and scientific committees for the 2021–2024 editions, focusing on algorithms. My responsibilities included designing problem ideas, generating test data, and preparing problem statements and editorials.

## ICPC Training Camps — Being a Coach

2024

I participated in two ICPC training camps in 2024, coaching teams from the Faculty of Computer Science Iași. The camps took place in Osijek, Croatia, and Wrocław, Poland, where I also served on the scientific committee at the latter. Additionally, I coached at SEERC 2024 in Bucharest.

## CruceaRosielasi.ro — Website for the Iași Red Cross

2022

I developed a **fast, user-friendly website** for the Iași Red Cross using modern web technologies like Vue, Nuxt, and Firebase. The site includes an admin panel with a minimalist yet powerful **content management system**.