

# Andrei-Costin CONSTANTINESCU

## PERSONAL DATA

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## EDUCATION

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2017 - 2021 MCompSci 4 year degree in COMPUTER SCIENCE,  
**University of Oxford**, Oxford, United Kingdom

- G-Research Prize for **all-time best** research project in Computer Science
- Teaching assistant for Principles of Programming Languages
- Courses on Concurrent Algorithms and Data Structures, Machine Learning, Databases, Probability, Compilers, Formal Verification, Advanced Algorithms

## WORK EXPERIENCE

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JUL - OCT 2020 SOFTWARE ENGINEERING INTERN,  
**Google**, Aarhus, Denmark

- Implemented a new backend for the Dart programming language web compiler using WebAssembly. Benchmarks show a 17% speed improvement over the previous JavaScript implementation.
- As the first client of the experimental Garbage Collected WebAssembly, filed bug reports and contributed to its design in the Chrome engine.
- Advanced C++ OOP, WebAssembly, Dart, Compiler Optimization Algorithms

JUL - SEPT 2019 SOFTWARE ENGINEERING INTERN,  
**Google**, Zurich, Switzerland

- Significantly improved the Address Understanding Service quality by building scalable infrastructure for and integrating new large geographical data sets.
- C++, Flume, gTest, Protocol Buffers, SQL, Python, Distributed Algorithms

2015 - 2019 COMPETITIVE PROGRAMMING TEACHER,  
**International Computer High School**, Bucharest, Romania

- Taught performance-oriented classes on advanced algorithms, data structures, combinatorics, number theory, computational geometry, etc.
- My gifted students received medals at national and international competitions (e.g. Silver, Balkan Olympiad in Informatics 2017).

## VOLUNTEER SCIENTIFIC COMMITTEE WORK

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2017, 2019, 2020 SCIENTIFIC COMMITTEE MEMBER,  
**"Romanian Master of Informatics"** International Contest

- Head scientific coordinator in 2019 and 2020
- Problem setter and contest tester

JUL 2018 SCIENTIFIC COMMITTEE MEMBER,  
**"Balkan Olympiad in Informatics 2018"** International Contest

- Problem setter and contest tester

2015 - 2017 ORGANIZER AND SCIENTIFIC COMMITTEE LEAD,  
**"Junior Challenge"** International Contest

- Team lead
- Problem setter and contest tester

## PUBLICATIONS

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2020 ["Proportional Representation under Single-Crossing Preferences Revisited"](#), with Edith Elkind,  
Accepted for the Thirty-Fifth AAAI Conference on Artificial Intelligence.

## HONORS AND AWARDS

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2018	23 <sup>rd</sup> place	Google Hash Code Finals 2018, Dublin, Ireland
	31 <sup>st</sup> place	ACM ICPC World Finals 2018, Beijing, China
	Gold Medal	ACM ICPC NWERC 2018, Bath, United Kingdom
2017	Bronze Medal	International Olympiad in Informatics 2017, Tehran, Iran
	Silver Medal	Central European Olympiad in Informatics 2017, Ljubljana, Slovenia
	Gold Medal	National Olympiad in Informatics 2017, Brasov, Romania
2016	Gold Medal	International Tournament in Informatics "John Atanasoff", Shumen, Bulgaria
	Silver Medal	Romanian Master of Informatics 2016, Bucharest, Romania
	Silver Medal	International Olympiad in Informatics 2016, Kazan, Russian Federation
	Gold Medal	Balkan Olympiad in Informatics 2016, Nicosia, Cyprus
	"Mihai Patrascu"	Award received for being the most prolific competitor of the year
	1 <sup>st</sup> place	National Training and IOI Selection Camp 2, Magurele, Romania
	1 <sup>st</sup> place	National Training and IOI Selection Camp 1, Focsani, Romania
	1 <sup>st</sup> place	National Olympiad in Informatics 2016, Craiova, Romania
2015	Bronze Medal	International Tournament in Informatics "John Atanasoff", Shumen, Bulgaria
	Silver Medal	Romanian Master of Informatics 2015, Bucharest, Romania
	1 <sup>st</sup> place	National Team Contest "Adolescent Grigore Moisil" 2015, Bucharest, Romania
	Gold Medal	National Olympiad in Informatics 2015, Tirgoviste, Romania
	1 <sup>st</sup> place	National Contest "Urmasii lui Moisil" 2015, Iasi, Romania
2014	Silver Medal	National Olympiad in Informatics 2014, Pitesti, Romania
2013	Gold Medal	International Tournament in Informatics "John Atanasoff", Shumen, Bulgaria

## PROGRAMMING SKILLS

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Expert:	Algorithms, Data Structures
Proficient:	C / C++
Intermediate:	SCALA, JAVA, HASKELL, OCAML
Beginner:	PYTHON, C#

## CERTIFICATES

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JUL 2017	Romanian Baccalaureate Diploma - 9.87 Average (Out of 10)
MAR 2017	IELTS Academic Test - Band 7.5 (Out of 9), level C1
2015, 2016	SAT Subject Tests - Mathematics and Physics - 800 (Out of 800)

## LANGUAGES

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Native:	Romanian
Fluent:	English
Basic:	French, Turkish