Andrei-Costin CONSTANTINESCU

PERSONAL DATA

ADDRESS:	\<redacted\>
PHONE:	\<redacted\>
EMAIL:	andrei.costin.constantinescu@gmail.com
WEBSITE:	https://andrei1998.github.io/
LINKEDIN:	andrei-costin

EDUCATION

2021–2025 PhD STUDENT AND RESEARCH ASSISTANT,
DISTRIBUTED COMPUTING GROUP (PROF. ROGER WATTENHOFER)
ETH Zürich Zürich, Switzerland
• Research in Computational Social Choice, Game Theory and Distributed Systems.
• Supervising Master and Bachelor student theses.
• Teaching Assistant for Distributed Systems, Principles of Distributed Computing and Computational Thinking. Conducting, supervising and grading examinations.

2017–2021 MCompSci 4-year degree in COMPUTER SCIENCE,
University of Oxford, Oxford, United Kingdom
• Hoare Prize for **best overall performance** in Computer Science.
• G-Research Prize for **best third-year project** in Computer Science.
• Average **92.625 in master's** and **86.7 in third-year** examinations.
• Teaching Assistant for Principles of Programming Languages.

WORK EXPERIENCE

JUL–OCT 2021 SOFTWARE ENGINEERING INTERN,
Google, Zürich, Switzerland
• Improved the relevance and diversity of Code Search real-time generated suggestions using modern machine learning and data analysis techniques.
• Python, Machine Learning, C++, gTest, Protocol Buffers.

JUL–OCT 2020 SOFTWARE ENGINEERING INTERN,
Google, Aarhus, Denmark
• Implemented new backend for the Dart programming language web compiler using WebAssembly. Benchmarks showed 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, Zürich, Switzerland
• Significantly improved the Address Understanding Service quality by building scalable infrastructure and integrating new large geographical datasets.
• 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 prestigious awards in the international scene (e.g., Silver, Balkan Olympiad in Informatics 2017).

PROGRAMMING SKILLS

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

Publications

2023   "Meeting in a Convex World: Convex Consensus with Asynchronous Fallback,"
Andrei Constantinescu, Diana Ghinea, Roger Wattenhofer and Floris Westermann
Preprint.

"A Fair and Resilient Decentralized Clock Network for Transaction Ordering,"
Andrei Constantinescu, Diana Ghinea, Lioba Heimbach, Zilin Wang and Roger Wattenhofer
27th International Conference on Principles of Distributed Systems, Tokyo, Japan

"Stable Dinner Party Seating Arrangements" **(Best Paper Award)**,
Damien Berriaud, Andrei Constantinescu and Roger Wattenhofer
19th Conference on Web and Internet Economics, Shanghai, China

"Recovering Single-Crossing Preferences From Approval Ballots,"
Andrei Constantinescu and Roger Wattenhofer
19th Conference on Web and Internet Economics, Shanghai, China

"Computing the Best Policy That Survives a Vote,"
Andrei Constantinescu and Roger Wattenhofer
22nd International Conference on Autonomous Agents and Multiagent Systems, London, UK

2022   "Voting in Two-Crossing Elections,"
Andrei Constantinescu and Roger Wattenhofer
31st International Joint Conference on Artificial Intelligence, Vienna, Austria

2021   "Proportional Representation under Single-Crossing Preferences Revisited,"
Andrei Constantinescu and Edith Elkind
35th AAAI Conference on Artificial Intelligence, Virtual

Selected Scientific Committee Service

2017, 2019–2023   SCIENTIFIC CHAIR and SCIENTIFIC COMMITTEE MEMBER,
"Romanian Master of Informatics" International Contest
• Head scientific coordinator in 2020 and 2021.
• Problem setter and contest tester in 2017 and 2019–2023.

2018, 2021-2022   SCIENTIFIC COMMITTEE MEMBER, problem setter and contest tester
"Junior Balkan Olympiad in Informatics 2022"
"ICPC Southeastern Europe Regional Contest 2021"
"European Junior Olympiad in Informatics 2021"
"Balkan Olympiad in Informatics 2018"

Selected Honors and Awards

2018	23rd place	Google Hash Code Finals 2018, Dublin, Ireland
	31st 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	International Olympiad in Informatics 2016, Kazan, Russian Federation
	Gold Medal	Balkan Olympiad in Informatics 2016, Nicosia, Cyprus
	"Mihai Patrascu"	Award for the most prolific competitor of the year
	1st place	National Training and IOI Selection Camps, Focsani and Magurele, Romania
	1st place	National Olympiad in Informatics 2016, Craiova, Romania
	Gold Medal	National Olympiad in Informatics 2015, Targoviste, Romania
2013	Gold Medal	International Tournament in Informatics "John Atanasoff," Shumen, Bulgaria

Languages

Fluent: English, Romanian
Basic: German, French, Turkish