

Andrei-Costin CONSTANTINESCU

PERSONAL DATA

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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
Preprint.
- [“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

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| 2018 | 23 rd place | Google Hash Code Finals 2018, Dublin, Ireland |
| | 31 st 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 |
| | 1 st place | National Training and IOI Selection Camps, Focsani and Magurele, Romania |
| | 1 st 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