

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
- 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

- 2024 “[Convex Consensus with Asynchronous Fallback](#),”
[Andrei Constantinescu](#), Diana Ghinea, Roger Wattenhofer and Floris Westermann
38th International Symposium on Distributed Computing, Madrid, Spain
“[Brief Announcement: Unifying Partial Synchrony](#),”
[Andrei Constantinescu](#), Diana Ghinea, Jakub Sliwinski and Roger Wattenhofer
38th International Symposium on Distributed Computing, Madrid, Spain
“[Solving Woeginger’s Hiking Problem: Wonderful Partitions in Anonymous Hedonic Games](#),”
[Andrei Constantinescu](#), Pascal Lenzner, Rebecca Reiffenhäuser, Daniel Schmand and Giovanna Varricchio
51st International Colloquium on Automata, Languages and Programming, Tallinn, Estonia
“[Unravelling Expressive Delegations: Complexity and Normative Analysis](#),”
Giannis Tyrovolas, [Andrei Constantinescu](#) and Edith Elkind
38th AAAI Conference on Artificial Intelligence, Vancouver, Canada
- 2023 “[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 HONORS AND AWARDS

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| 2018 | 23 rd place | Google Hash Code Finals, Dublin, Ireland |
| | 31 st place | ACM ICPC World Finals, Beijing, China |
| | Gold Medal | ACM ICPC NWERC, Bath, United Kingdom |
| 2017 | Bronze Medal | International Olympiad in Informatics, Tehran, Iran |
| | Silver Medal | Central European Olympiad in Informatics, Ljubljana, Slovenia |
| | Gold Medal | National Olympiad in Informatics, Brasov, Romania |
| 2016 | Gold Medal | International Tournament in Informatics “John Atanasoff,” Shumen, Bulgaria |
| | Silver Medal | International Olympiad in Informatics, Kazan, Russian Federation |
| | Gold Medal | Balkan Olympiad in Informatics, Nicosia, Cyprus |
| | “Mihai Patrascu” | Award for year’s most prolific competitor |
| | 1 st place | National Training and IOI Selection Camps, Focsani and Magurele, Romania |
| | 1 st place | National Olympiad in Informatics, Craiova, Romania |
| 2015 | Gold Medal | National Olympiad in Informatics, Targoviste, Romania |
| 2013 | Gold Medal | International Tournament in Informatics “John Atanasoff,” Shumen, Bulgaria |

LANGUAGES

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

SELECTED SCIENTIFIC COMMITTEE SERVICE

PRESIDENT OF SCIENTIFIC COMMITTEE:

- 2023 Junior Balkan Olympiad in Informatics
- 2020–2021 Romanian Master of Informatics (Int. Contest)

SCIENTIFIC COMMITTEE MEMBER, problem setter and contest tester:

- 2022–2023 Junior Balkan Olympiad in Informatics
- 2021 ICPC Southeastern Europe Regional Contest
- 2021 European Junior Olympiad in Informatics
- 2018 Balkan Olympiad in Informatics
- 2017, 2019–2023 Romanian Master of Informatics (Int. Contest)