

Diana Ghinea

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Work Experience

HSLU (Lucerne University of Applied Sciences and Arts)

Mar 2025 - Now - **Senior Research Associate**

Research Interests: Byzantine Fault Tolerance in Distributed Computing

Google Zürich

SafeSearch - **Software Engineering Intern** (Summer 2024)

Worked on improving the filters against inappropriate content in Google Search.

Infrasec SRE - **Site Reliability Engineering Intern** (Summer 2023)

Worked on automating the credentials revocation process.

Shopping SRE - **Site Reliability Engineering Intern** (Autumn 2022)

Developed a complex fuzz testing infrastructure, meant to prevent incidents in Google Shopping.

Solarwinds - **Software Engineering Intern** (Autumn 2021)

Worked on introducing Post-Quantum Cryptography in OpenSK: an open-source Rust implementation for security keys. More details can be found [in our paper](#).

YouTube - **Software Engineering Intern** (Summers of 2017, 2018, 2019, 2020)

- **STEP Intern** (Summer 2016)

Worked on classifiers and visualization tools to combat abuse on YouTube.

Education

Sep 2020 - Mar 2025 **ETH Zürich - D-ITET - Distributed Computing**

Doctor of Sciences (**Dr. sc.**)

Sep 2018 - May 2020 **ETH Zürich - D-INFK - Theoretical Computer Science**

Master of Science (**MSc**)

Oct 2015 - Jun 2018 **University of Bucharest - Faculty of Mathematics and Computer Science**

Bachelor of Science (**BSc**)

Sep 2011 - Jun 2015 **"Tudor Vianu" National High School of Computer Science, Bucharest**

Publications

- **Brief Announcement: Towards Round-Optimal Approximate Agreement on Trees**
Marc Fuchs, Diana Ghinea and Zahra Parsaeian.
44th ACM Symposium on Principles of Distributed Computing (**PODC**), Huatulco, Mexico, Jun '25.
- **Byzantine Stable Matching [Best paper award]**
Andrei Constantinescu, Marc Dufay, Diana Ghinea and Roger Wattenhofer.
44th ACM Symposium on Principles of Distributed Computing (**PODC**), Huatulco, Mexico, Jun '25.
- **Communication-Optimal Convex Agreement**
Diana Ghinea, Chen-Da Liu-Zhang and Roger Wattenhofer.
44th ACM Symposium on Principles of Distributed Computing (**PODC**), Huatulco, Mexico, Jun '25.
- **Brief Announcement: Unifying Partial Synchrony**
Andrei Constantinescu, Diana Ghinea, Jakub Sliwinski and Roger Wattenhofer
38th International Symposium on Distributed Computing (**DISC**), Madrid, Spain, Oct '24.
- **Convex Consensus with Asynchronous Fallback**
Andrei Constantinescu, Diana Ghinea, Roger Wattenhofer and Floris Westermann.
38th International Symposium on Distributed Computing (**DISC**), Madrid, Spain, Oct '24.
- **Brief Announcement: Communication-Optimal Convex Agreement**
Diana Ghinea, Chen-Da Liu-Zhang and Roger Wattenhofer.
43rd ACM Symposium on Principles of Distributed Computing (**PODC**), Nantes, France, Jun '24.

- ***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 (**OPODIS**), Tokyo, Japan, Dec '23
- ***Hybrid Post-Quantum Signatures in Hardware Security Keys [Best workshop paper award]***
Diana Ghinea, Fabian Kaczmarczyk, Jennifer Pullman, Julien Cretin, Rafael Misoczki, Stefan Kölbl, Luca Invernizzi, Elie Bursztein and Jean-Michel Picod.
4th ACNS Workshop on Secure Cryptographic Implementation, Kyoto, Japan, Jun '23
- ***Multidimensional Approximate Agreement with Asynchronous Fallback***
Diana Ghinea, Chen-Da Liu-Zhang and Roger Wattenhofer.
35th ACM Symposium on Parallelism in Algorithms and Architectures (**SPAA**), Orlando, Florida, Jun '23
- ***Optimal Synchronous Approximate Agreement with Asynchronous Fallback***
Diana Ghinea, Chen-Da Liu-Zhang and Roger Wattenhofer.
41st ACM Symposium on Principles of Distributed Computing (**PODC**), Salerno, Italy, Jul '22
- ***Round-Optimal Byzantine Agreement***
Diana Ghinea, Vipul Goyal and Chen-Da Liu-Zhang.
Eurocrypt, Trondheim, Norway, May '22
- ***From Partial to Global Asynchronous Reliable Broadcast***
Diana Ghinea, Martin Hirt and Chen-Da Liu-Zhang.
34th International Symposium on Distributed Computing (**DISC**), October '20

Selected Awards

Algorithms

- Ranked the **5th team** of the Bucharest site at the Regional Phase of **ACM ICPC** (2017).
- Obtained the **4th place** at the **National Phase of FiiCode**, an ACM-style contest for university students and for high school students (2016).
- Competed in the **Olympiad of Informatics** every year in high school. My best result was **1st place** in the **online edition of the National Phase** (2015).
- Qualified to the **International Tournament in Informatics**, Shumen (2014).
- Obtained the **Bronze Medal** at the **Romanian Masters of Informatics** (2014).

Software Development & IT

- Used Microsoft Azure to build an app deciding if Twitter users should receive gifts from Santa based on their latest tweets. The app was built at the **Microsoft TECHaton** (2016) and obtained **2nd place**.
- Obtained the **2nd place** at the **ITFest Hackathon** (2015). We were given 12 hours to build a web app representing a Survey Wizard that respected some requirements.
- Worked on a Smart TV app together with two colleagues at the **UPC Challenge Hackathon** (2015). The app was built using the Metrological Applications framework and it turned the ordinary TV experience into a social one. We were awarded **3rd place**.
- Obtained the **2nd place** at **GREPIT** (2015) in the Web Applications category. Presented an educational web app built using AngularJs and PHP meant to help students prepare for the Baccalaureate exam.
- Qualified for the National Phase of **Infoeducație** every year in high school. The most important results were in 2014, when I obtained the **3rd place** with a Windows 8 app meant to help students learn the basics of Calculus, and in 2015, when I obtained the **3rd place** with a web app meant to help students prepare for the Baccalaureate exam.
- Qualified for the **National Olympiad of IT** in the last three years of high school. The contest required solving a lot of tasks using MS Office and building a website in a very short time. The best performances were obtained in 2014 (the **1st place**) and in 2015 (the **4th place**).