

Arash Pourdamghani

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Research Interests

Randomized Algorithms
Network Algorithms
Blockchain

Education

- 2021-Present **TU Berlin**, Berlin, Germany.
PhD in Computer Science, continuation from University of Vienna
- 2020-2021 **University of Vienna**, Vienna, Austria.
Direct PhD in Computer Science
- 2014-2019 **Sharif University of Technology**, Tehran, Iran.
BSc in Computer Engineering

Publications

- SeedTree: A Dynamically Optimal and Local Self-Adjusting Tree**, with Chen Avin, Robert Sama, and Stefan Schmid.
IEEE Conference on Computer Communications (INFOCOM'23)
- Self-Adjusting Partially Ordered Lists**, with Vamsi Addanki, Maciej Pacut, Gabor Retvari, Stefan Schmid, and Juan Vanerio.
IEEE Conference on Computer Communications (INFOCOM'23)
- The Augmentation-Speed Tradeoff for Consistent Network Updates**, with Monika Henzinger, Ami Paz and Stefan Schmid.
ACM SIGCOMM Symposium on SDN Research (SOSR'22)
- Software-Defined Reconfigurable Intelligent Surfaces: From Theory to End-to-End Implementation**, with Christos Liaskos, Lefteris Mamatras, Ageliki Tsioliaridou, Sotiris Ioannidis, Andreas Pitsillides, Stefan Schmid and Ian Akyildiz.
Proceedings of the IEEE (PIEEE'22)
- Hybrid Mining: Exploiting Blockchain's Computational Power for Distributed Problem Solving**, with Krishnendu chatterjee and Amir Kafshdar Goharshady.
ACM Symposium on Applied Computing (SAC'19)
- Probabilistic Smart Contracts: Secure Randomness on the Blockchain**, with Krishnendu chatterjee and Amir Kafshdar Goharshady.
IEEE International Conference on Blockchain and Cryptocurrency (ICBC'19)
- Fence Insertion in Loop-less Programs**, with Mohammad Taheri and Mohsen Lesani.
International Symposium on Distributed Computing (DISC'19)

Work Experiences

- 2021-Present **Research Assistant**, *Intelligent Networks*, TU Berlin, Berlin, Germany, Under the supervision of Prof. Stefan Schmid.

- 2020-2021 **Research Assistant**, *Communication Technologies group, University of Vienna, Vienna, Austria*, Under the supervision of Prof. Stefan Schmid.
- Summer 2018 **Research Intern**, *Computer-Aided Verification group, IST Austria, Vienna, Austria*, Under the supervision of Prof. Krishnendu Chatterjee.
- Summer 2017 **Research Intern**, *Chinese University of Hong Kong, Hong Kong, China*, Under the supervision of Prof. James Cheng.
- Summer 2016 **Undergraduate Research Experience**, *Sharif University of Technology, Tehran, Iran*, Under the supervision of Dr. Amin Fazli.

Related Courses

Network Algorithm (Graduated Course) : (20/20)
 Approximation Algorithms (Graduated Course) : (18.6/20)
 Randomized Algorithms (Graduated Course) : (18/20)
 Data Structures and Algorithms: (20/20)
 Advanced Programming: (20/20)
 Software Engineering: (20/20)
 Graph Theory: (20/20)

Awards

- Spring 2021 **Career Grant**, *FFG Austria*.
- Fall 2020 **Phd Grant for ERC project self-adjusting networks**, *ERC*.
- Fall 2019 **MacCracken PhD Fellowship**, *NYU*.
- Spring 2019 **Student Travel Grant**, *ACM SIGAPP for SAC 2019*.
- Summer 2018 **2-month scholarship**, *The Austrian Agency for International Cooperation in Education & Research (OeAD-GmbH)*.
- Fall 2016 **Awarded for Success in Studies**, *Sharif University of Technology*.
 By the university president
- 2014-2016 **Grant for Undergraduate Studies**, *Iran's National Elites Foundation*.
 For outstanding academic success
- Summer 2013 **Silver Medal**, *Iranian National Olympiad in Informatics (INOI)*.
 I was selected among more than tens of thousand of Iranian top students

Teaching

- 2021-Present **Tutor**, *TU Berlin, Berlin, Germany*.
 Algorithms for Networked and Distributed Systems (Winter 2021, Winter 2022)
 Cryptocurrency and Blockchain Networks Seminar (Summer 2022, Summer 2023)
 Network Protocols and Architectures (Winter 2021)
- 2015-2018 **Teaching Assistant**, *Sharif University of Technology, Tehran, Iran*.
 Algorithms Design and Analysis, Dr. Mohammad Ali Abam (Fall 2018)
 Data Structures and Algorithms, Dr. Ali Sharifi Zarchi (Spring 2016, Spring 2017, Spring 2018)
- 2014-2016 **Olympiad Teacher**, *Iranian National Olympiad in Informatics Summer Camp, Tehran, Iran*.

Skills

- Programming Python, Java, C++, Solidity
 Languages Persian (native), English (work proficiency)