

# Marcin Waniek | Curriculum Vitae

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## Employment

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<b>University of Warsaw</b> <i>Assistant Professor</i>	<b>Oct 2023–now</b> <i>Warsaw, Poland</i>
<b>IDEAS NCBR</b> <i>Postdoc</i>	<b>Oct 2023–now</b> <i>Warsaw, Poland</i>
<b>New York University Abu Dhabi</b> <i>Post-Doctoral Associate</i> ○ Supervisor: Dr Talal Rahwan	<b>Feb 2019–Sep 2023</b> <i>Abu Dhabi, UAE</i>
<b>Khalifa University of Science and Technology</b> <i>Post-Doctoral Fellow</i> ○ Supervisor: Dr Aamena Alshamsi	<b>Jul 2017–Feb 2019</b> <i>Abu Dhabi, UAE</i>

## Education

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<b>University of Warsaw</b> <i>Doctor of Philosophy, Computer Science</i> ○ <b>Polish Artificial Intelligence Society Award for the Best Ph.D. Dissertation in AI in 2017</b> ○ <b>Dissertation with distinction</b> ○ Warsaw Center of Mathematics and Computer Science scholarship ○ Scholarship for best PhD students ○ Scholarship from the economic subsidy ○ Thesis : <i>Hiding in Social Networks</i> (supervisors: Prof. Piotr Faliszewski, Dr Tomasz Michalak)	<b>Sep 2013–Jun 2017</b> <i>Warsaw, Poland</i>
<b>University of Warsaw</b> <i>Master of Science, Computer Science</i> ○ <b>Diploma with distinction, Summa cum laude</b> ○ Rector's scholarship for best students ○ Thesis : <i>Computer simulation of 17th century warfare</i> (supervisor: Prof. Jerzy Tyszkiewicz)	<b>Sep 2011–Jun 2013</b> <i>Warsaw, Poland</i>
<b>University of Warsaw</b> <i>Bachelor of Science, Computer Science</i>	<b>Sep 2008–Jun 2011</b> <i>Warsaw, Poland</i>

## Journal publications

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<b>Human intuition as a defense against attribute inference</b> <i>M. Waniek, N. Suri, A. Zameek, B. AlShebli, T. Rahwan</i>	<b>Scientific Reports</b> 2023
<b>Hiding from centrality measures: A Stackelberg game perspective</b> <i>M. Waniek, J. Woźnica, K. Zhou, Y. Vorobeychik, T. Michalak, T. Rahwan</i>	<b>IEEE TKDE</b> 2023
<b>Trading contact tracing efficiency for finding patient zero</b> <i>M. Waniek, P. Holme, K. Farrahi, R. Emonet, M. Cebrian, T. Rahwan</i>	<b>Scientific Reports</b> 2022

<b>Beijing's central role in global artificial intelligence research</b>	<b>Scientific Reports</b>
<i>B. AlShebli, E. Cheng, <u>M. Waniek</u>, R. Jagannathan, P. Hernández-Lagos, T. Rahwan</i>	2022
<b>Bridging the polarization gap: Maximizing diffusion among dissimilar communities</b>	<b>Collective Intelligence</b>
<i>M. Waniek, C. A. Hidalgo</i>	2022
<b>Hiding opinions from machine learning</b>	<b>PNAS Nexus</b>
<i>M. Waniek, W. Magdy, T. Rahwan</i>	2022
<b>Social diffusion sources can escape detection</b>	<b>iScience</b>
<i>M. Waniek, P. Holme, M. Cebrian, T. Rahwan</i>	2022
<b>Hiding in temporal networks</b>	<b>IEEE TNSE</b>
<i>M. Waniek, P. Holme, T. Rahwan</i>	2022
<b>How members of covert networks conceal the identities of their leaders</b>	<b>ACM TIST</b>
<i>M. Waniek, T. Michalak, M. Wooldridge, T. Rahwan</i>	2021
<b>Traffic networks are vulnerable to disinformation attacks</b>	<b>Scientific Reports</b>
<i>M. Waniek, G. Raman, B. AlShebli, J. Peng, T. Rahwan</i>	2021
<b>How weaponizing disinformation can bring down a city's power grid</b>	<b>PLOS One</b>
<i>G. Raman, B. AlShebli, <u>M. Waniek</u>, T. Rahwan, J. Peng</i>	2020
<b>Computational aspects of optimal strategic network diffusion</b>	<b>Theoretical Computer Science</b>
<i>M. Waniek, K. Elbassioni, F. L. Pinheiro, C. A. Hidalgo, A. Alshamsi</i>	2020
<b>Strategic attack &amp; defense in security diffusion games</b>	<b>ACM TIST</b>
<i>M. Waniek, T. Michalak, A. Alshamsi</i>	2019
<b>How to hide one's relationships from link prediction algorithms</b>	<b>Scientific Reports</b>
<i>M. Waniek, K. Zhou, Y. Vorobeychik, E. Moro, T. Michalak, T. Rahwan</i>	2019
<b>Strategic distribution of seeds to support diffusion in complex networks</b>	<b>PLOS One</b>
<i>J. Jankowski, <u>M. Waniek</u>, A. Alshamsi, P. Bródka, R. Michalski</i>	2019
<b>Hiding individuals and communities in a social network</b>	<b>Nature Human Behaviour</b>
<i>M. Waniek, T. Michalak, M. Wooldridge, T. Rahwan</i>	2018

## Conference publications

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<b>Attacking Similarity-Based Sign Prediction</b>	<b>IEEE ICDM</b>
<i>M. Godziszewski, T. Michalak, <u>M. Waniek</u>, T. Rahwan, K. Zhou, Y. Zhu</i>	2021
<b>Strategic Evasion of Centrality Measures</b>	<b>AAMAS</b>
<i>M. Waniek, J. Woźnica, K. Zhou, Y. Vorobeychik, T. Rahwan, T. Michalak</i>	2021
<b>The Manipulability of Centrality Measures: An Axiomatic Approach</b>	<b>AAMAS</b>
<i>T. Wąs, <u>M. Waniek</u>, T. Rahwan, T. Michalak</i>	2020
<b>Hiding in Multilayer Networks</b>	<b>AAAI</b>
<i>M. Waniek, T. Michalak, T. Rahwan</i>	2020
<b>Attacking Similarity-Based Link Prediction in Social Networks</b>	<b>AAMAS</b>
<i>K. Zhou, T. Michalak, <u>M. Waniek</u>, T. Rahwan, Y. Vorobeychik</i>	2019

<b>On the Construction of Covert Networks</b> <i>M. Waniek, T. Michalak, T. Rahwan, M. Wooldridge</i>	<b>AAMAS</b> 2017
<b>The Dollar Auction with Spiteful Players</b> <i>M. Waniek, L. Tran-Thanh, T. Michalak, N. Jennings</i>	<b>AAAI</b> 2017
<b>Repeated Dollar Auctions: A Multi-Armed Bandit Approach</b> <i>M. Waniek, L. Tran-Thanh, T. Michalak</i>	<b>AAMAS</b> 2016
<b>Spiteful Bidding in the Dollar Auction</b> <i>M. Waniek, A. Nieścieruk, T. Michalak, T. Rahwan</i>	<b>IJCAI</b> 2015
<b>Spiteful Bidding in the Dollar Auction (Extended Abstract)</b> <i>M. Waniek, A. Nieścieruk, T. Michalak, T. Rahwan</i>	<b>AAMAS</b> 2015
<b>Petro: A Multi-Agent Model of Historical Warfare</b> <i>M. Waniek</i>	<b>IEEE/WIC/ACM IAT</b> 2014
<b>An Agent-Based Simulation of the Battle of Kokenhausen (Extended Abstract)</b> <i>M. Waniek</i>	<b>AAMAS</b> 2014

## Research projects led as principal investigator

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<b>Hiding in Social Networks</b> <i>Polish National Science Centre grant UMO-2015/17/N/ST6/03686</i> Principal investigator, performing research on disguising one's importance in social networks.	<b>2016-2019</b> <i>University of Warsaw</i>
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## Research projects participant

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<b>Tractable Game-Theoretic Network Centrality Measures</b> <i>Polish National Science Centre grant DEC-2013/09/D/ST6/03920</i> Performing research on game-theoretic centralities in graphs.	<b>2014-2016</b> <i>University of Warsaw</i>
<b>GRAPE (Group for Research in Applied Economics)</b> <i>Polish National Science Centre grant UMO-2011/01/D/HS4/04039</i> Creating multi-agent system for simulating pension system reform and analyzing its effect among heterogenous cohorts, searching for the best reform path.	<b>2014-2015</b> <i>University of Warsaw</i>

## Invited talks

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<b>3rd International Conference on Frontiers in Computing and Systems</b> <i>Hiding in Social Networks (tutorial)</i>	<b>Dec 2022</b> <i>IIT Ropar, India</i>
<b>Workshop on Food Resilience and Rural Poverty in Vietnam</b> <i>Network resilience to random failure and strategic attack</i>	<b>Feb 2022</b> <i>Online</i>
<b>Massachusetts Institute of Technology, Scalable Cooperation Group</b> <i>Hiding in Social Networks</i>	<b>Mar 2018</b> <i>Cambridge, USA</i>
<b>Military University of Technology, Institute of Telecommunications</b> <i>Hiding in Social Networks</i>	<b>Jul 2017</b> <i>Warsaw, Poland</i>

## Research cooperation

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<b>Tokyo Institute of Technology</b> Cooperation with Petter Holme on hiding the source of diffusion and hiding nodes in temporal networks.	<b>Sep 2019</b> <i>Tokyo, Japan</i>
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**Massachusetts Institute of Technology****Mar 2018***Cambridge, USA*

Cooperation with Cesar Hidalgo on boosting diffusion in homophilous networks.

**University of Southampton****Nov 2015, Jun 2016***Southampton, UK*

Cooperation with Long Tran-Thanh on learning in the dollar auction with spiteful players.

**University of Oxford****Jun 2015***Oxford, UK*

Cooperation with Tomasz Michalak and Michael Wooldridge (head of Computer Science department) on disguising centrality in network. Presentation on the seminar for Game Theory group.

**Masdar Institute of Science and Technology****Jan 2015, Mar 2017***Abu Dhabi, UAE*

Cooperation with Talal Rahwan and Iyad Rahwan on disguising centrality in networks. Presentation on seminar for Iyad Rahwan's research group.

**Media coverage**

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**Tech Xplore:** [link](#)*Dec 2022***Fast Company:** [link](#)*Aug 2020***Science Alert:** [link](#)*Aug 2020***Energie & Management:** [link](#)*Aug 2020***El Pais:** [link](#)*Sep 2019***Science in Poland:** [link](#)*Feb 2018***Interia:** [link](#)*Feb 2018***Warszawa Nasze Miasto:** [link](#)*Feb 2018***Radio TOK FM:** [link](#)*Feb 2018***Vice:** [link](#)*Jan 2018***Conference & workshop presentations**

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**IC2S2 2023****Jul 2023***9th Annual International Conference on Computational Social Science**Copenhagen, Denmark***IC2S2 2022****Jul 2022***8th Annual International Conference on Computational Social Science**Chicago, USA***IC2S2 2020****Jul 2020***6th Annual International Conference on Computational Social Science**online***AAAI 2020****Feb 2020***The 34th AAAI Conference on Artificial Intelligence**New York, USA***NetSciX 2020****Jan 2020***International School and Conference on Network Science**Tokyo, Japan***IC2S2 2019****Jul 2019***5th Annual International Conference on Computational Social Science**Amsterdam, Netherlands***WTFNS 2019****Apr 2019***The Frontiers of Network Science**Abu Dhabi, UAE*

<b>ICCS 2018</b> <i>International Conference on Complex Systems</i>	<b>Jul 2018</b> Cambridge, USA
<b>IC2S2 2018</b> <i>4th Annual International Conference on Computational Social Science</i>	<b>Jul 2018</b> Evanston, USA
<b>NetSci 2018</b> <i>International School and Conference on Network Science</i>	<b>Jun 2018</b> Paris, France
<b>CompleNet 2018</b> <i>International Conference on Complex Networks</i>	<b>Mar 2018</b> Boston, USA
<b>FIT 2017</b> <i>Forum of Theoretical Computer Science</i>	<b>Jul 2017</b> Warsaw, Poland
<b>AAMAS 2017</b> <i>International Conference on Autonomous Agents and Multiagent Systems</i>	<b>May 2017</b> Sao Paulo, Brazil
<b>ADVERSE 2017</b> <i>Adversarial Reasoning in Multiagent Systems</i>	<b>May 2017</b> Sao Paulo, Brazil
<b>Network Science in Economics 2017</b> <i>Third Annual Conference on Network Science and Economics</i>	<b>Apr 2017</b> Saint Louis, USA
<b>AAAI 2017</b> <i>The 31st AAAI Conference on Artificial Intelligence</i>	<b>Feb 2017</b> San Francisco, USA
<b>Hurwicz Workshop 2016</b> <i>VI Hurwicz Workshop on Mechanism Design Theory</i>	<b>Dec 2016</b> Warsaw, Poland
<b>GAMES 2016</b> <i>GAMES 2016: 5th World Congress of the Game Theory Society</i>	<b>Jul 2016</b> Maastricht, Netherlands
<b>Stony Brook 2016</b> <i>The 27th International Conference on Game Theory</i>	<b>Jul 2016</b> Stony Brook, USA
<b>Connected Life 2016</b> <i>Connected Life 2016: Collective Action and the Internet</i>	<b>Jun 2016</b> Oxford, UK
<b>AAMAS 2016</b> <i>International Conference on Autonomous Agents and Multiagent Systems</i>	<b>May 2016</b> Singapore, Singapore
<b>IJCAI 2015</b> <i>International Joint Conference on Artificial Intelligence</i>	<b>Jul 2015</b> Buenos Aires, Argentina
<b>Stony Brook 2015</b> <i>The 26th International Conference on Game Theory</i>	<b>Jul 2015</b> Stony Brook, USA
<b>Connected Life 2015</b> <i>Connected Life 2015: Our Digital Society</i>	<b>Jun 2015</b> Oxford, UK
<b>AAMAS 2015</b> <i>International Conference on Autonomous Agents and Multiagent Systems</i>	<b>May 2015</b> Istanbul, Turkey
<b>IAT 2014</b> <i>International Conference on Intelligent Agent Technology</i>	<b>Aug 2014</b> Warsaw, Poland
<b>AAMAS 2014</b> <i>International Conference on Autonomous Agents and Multiagent Systems</i>	<b>May 2014</b> Paris, France

**ECAGS 2014**  
*Workshop on Economic and Computational Aspects of Game Theory*

**Mar 2014**  
*Warsaw, Poland*

## Reviewing experience

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### Journals.....

<b>AIJ:</b> 2022	<i>Reviewer</i>
<b>COIN:</b> 2019	<i>Reviewer</i>
<b>IEEE Transactions on Big Data:</b> 2020	<i>Reviewer</i>
<b>IEEE Transactions on Computational Social Systems:</b> 2020	<i>Reviewer</i>
<b>JAIR:</b> 2019	<i>Reviewer</i>
<b>PLOS ONE:</b> 2017	<i>Reviewer</i>

### Conferences.....

<b>AAAI:</b> 2022,2024	<i>Program Committee</i>
<b>AAAI:</b> 2015, 2016, 2018	<i>Subreviewer</i>
<b>AAMAS:</b> 2021	<i>Program Committee</i>
<b>AAMAS:</b> 2019	<i>Subreviewer</i>
<b>ECAI:</b> 2023	<i>Program Committee</i>
<b>ICDT:</b> 2020	<i>Subreviewer</i>
<b>IJCAI:</b> 2022, 2023	<i>Program Committee</i>
<b>IJCAI:</b> 2021	<i>Senior Program Committee</i>
<b>IJCAI:</b> 2016	<i>Subreviewer</i>
<b>NetSciX:</b> 2019	<i>Program Committee</i>
<b>Workshop on Social Influence:</b> 2019,2021	<i>Program Committee</i>
<b>WWW:</b> 2022	<i>Reviewer</i>

### Other.....

<b>Fulbright Graduate Student Award:</b> 2022	<i>Reviewer</i>
<b>Polish Information Processing Society Best Master Thesis Award:</b> 2023	<i>Reviewer</i>

## Student supervision

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### Capstone projects at New York University (auxiliary adviser).....

<b>Sangjin David Lee</b> <i>Revisiting YouTube Algorithm's Allegation of User Radicalization</i>	<b>Feb 2021-May 2022</b>
<b>Nour Abdelmoneim and Jakub Niewiadomski</b> <i>Protecting Sensitive Information from Probing AI</i>	<b>Feb 2021-May 2022</b>
<b>Abdullah Zameek and Navya Suri</b> <i>Revisiting the Uncanny Valley using Generative Adversarial Networks</i>	<b>Feb 2020-May 2021</b>
<b>Domnica Dzitac</b> <i>Extending the Dollar Auction: The Power of AI in Shaping Conflict</i>	<b>Feb 2020-May 2021</b>

## Teaching experience

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**Object-Oriented Programming**

*Laboratory & classes*

**2014-2017**

*University of Warsaw*

**Advanced Methods of Artificial Intelligence**

*Laboratory*

**2014-2017**

*University of Warsaw*

**Information Technology**

*Seminar*

**2014**

*University of Warsaw*

## Computer skills

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**Basic:** CSS, HTML, JavaScript, PHP

**Intermediate:** C#, Haskell, L<sup>A</sup>T<sub>E</sub>X, MS SQL, Oracle SQL, Prolog, Python

**Advanced:** C, C++, Java

## Languages

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**Polish:** Mothertongue

**English:** Proficient

**German, Russian:** Basic

## Research interests

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- Social network analysis
- Complexity analysis
- All-pay auctions
- Simulations
- Multi-agent system

## Personal interests

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- Science Fiction literature
- Weightlifting
- History of 17th century Europe