

Shani Alkoby

Curriculum Vitae

Postdoctoral researcher
Computer Science Department
The University of Texas at Austin, USA
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Research Interests

Artificial Intelligence; Information Disclosure; Value of Information; Information Brokers in Multi-Agent Systems; Multi-Agent Systems; Game Theory; Auction Theory; Multi-Agent Economic Search/Exploration; Mechanism Design; Human-Computer Interaction; Ad-hoc Teamwork; Transportation.

Education and Occupation

- 2018 Postdoctoral researcher at the computer science department at The University of Texas at Austin, Texas, USA. Member of the Learning Agents Research Group (LARG) within the Artificial Intelligence Laboratory under the supervision of Prof. Peter Stone.
- 2013-2017 Ph.D. in Computer Science, Bar-Ilan University, Israel, under the supervision of Prof. David Sarne.
Thesis title: **“Self-Interested Information Providers and Selective Information Disclosure in Multi-Agent Systems”**.
- 2011-2013 M.Sc. (*cum laude*) in Computer Science, Bar-Ilan University, Israel, under the supervision of Prof. David Sarne and Dr. Esther David.
Thesis title: **“On the Choice of Obtaining and Disclosing the Common Value in Auctions”**.
- 2008-2011 B.Sc. in Computer Science, Bar-Ilan University, Israel.

Selected Awards and Recognitions

The National Science Foundation (NSF),
2018, under review.

The International AI Safety Grant, the Future of Life institute,
2018, accepted.

AAAI-2017 Student Scholarship, Thirty-First AAAI Conference, 2017.

President's Scholarship for excellent Ph.D. students, 2013-2017.

Member of the Bar-Ilan excellence program "HANIVHARIM", 2008-2011.

Member of the Microsoft's Students Excellence Program, 2008-2011.

Invited Talks

July 2018 "The Power of Information in Multiagent Systems".
Raytheon Information Systems and Computing Technology Network (ISaCTN) workshop. Tucson, Arizona.

Ongoing Projects

- Member in the **Good Systems** interdisciplinary collaborative project at UT.

- Collaboration with Prof. Pingzhong Tang, *Tsinghua University* and Dr. Zihe Wang, *Shanghai University* on finding mechanisms for efficiently selling information to people.

- Member in the Transportation sub-theme within a UT Bridging Barriers Initiative.

- DARPA Lifelong Learning project (L2M).
Collaborating with the *University of Pennsylvania*, *University of Michigan*, *Brown University*, and the *University of Southern California*.

Service

Program Committee AAAI 2019, AAMAS 2019.

Reviewer IROS 2018, IJCAI 2016, AMEC 2015, AAAI 2013.

Mentoring Head of the mentoring program at the Department of Computer Science at Bar-Ilan University, 2016-2017.

Teaching Experience

Lecturer **Texas University at Austin**

Guest Lecturer, Autonomous Intelligent Robotics (FRI I) - Spring 2018

Bar-Ilan University

Introduction to computing in physics, 2017.

C programming Workshop, 2017.

Assistantship

Bar-Ilan University

Operating Systems, 2015-2017

Databases, 2014-2016

The College of Management Academic Studies

Operating Systems, 2014-2015.

Publications

Papers in Refereed Conferences and Journals

2019

Shani Alkoby, David Sarne and Igal Milchtaich, Strategic Signaling for Selling Information Goods, In proceeding of IJCAI (2019). (acceptance rate of below 17.8%)

Manish Ravula, **Shani Alkoby**, and Peter Stone, Ad-hoc Teamwork With Behavior-Switching Agents , In proceeding of IJCAI (2019). (acceptance rate of below 17.8%)

Shani Alkoby, Zihe Wang, David Sarne and Pingzhong Tang, Making Money from What You Know - How to Sell Information?, in proceeding of AAAI (2019). (acceptance rate of below 16.2%)

Shani Alkoby, Avilash Rath, and Peter Stone, Teaching Social Behavior through Human Reinforcement for Ad hoc Teamwork: The STAR Framework, In Proceedings of AAMAS (2019), Extended Abstract. (acceptance rate of below 27%)

Erel Segal-Halevi, **Shani Alkoby**, Tomer Sharbaf and David Sarne, Obtaining Costly Unverifiable Valuations from a Single Agent, In Proceedings of AAMAS (2019). (acceptance rate of below 25%)

Guni Sharon, Steve Boyles, **Shani Alkoby**, and Peter Stone, Marginal Cost Pricing with a Fixed Error Factor in Traffic Networks, In Proceedings of AAMAS (2019). (acceptance rate of below 25%)

Shih-Yun Lo, **Shani Alkoby**, and Peter Stone, Robust Moti-

on Planning and Safety Benchmarking in Human Workspaces, In Proceedings of the AAAI Workshop on Artificial Intelligence Safety (2019). (unranked)

2018

Shani Alkoby, David Sarne, Erel Segal-Halevi and Tomer Sharbaf, Eliciting Truthful Unverifiable Information, In Proceedings of AAMAS pages 1850-1852 (2018), Extended Abstract. (acceptance rate of below 25%)

2017

Shani Alkoby David Sarne and Igal Milchtaich, Strategic Signaling and Free Information Disclosure in Auctions, in proceeding of AAAI pages 319-327 (2017).(acceptance rate of below 25%)

Shani Alkoby and David Sarne, The Benefit in Free Information Disclosure When Selling Information to People, in proceeding of AAAI pages 985-992 (2017). (acceptance rate of below 25%)

2015

Shani Alkoby, David Sarne and Sanmay Das, Strategic Free Information Disclosure for Search-Based Information Platforms, In Proceedings of AAMAS pages 635-643 (2015). (acceptance rate of below 25%)

2014

David Sarne, **Shani Alkoby** and Esther David, On the Choice of Obtaining and Disclosing the Common Value in Auctions. AIJ 215:24-54, 2014.(A+)

2012

Shani Alkoby, Esther David, and David Sarne, On the Choice of Obtaining and Disclosing the Common Value in Auctions. In Proceedings of IAT-2012, pp. 111-118.(unranked)

Book Chapter

2015

Shani Alkoby and David Sarne, Strategic Free Information Disclosure for a Vickrey Auction, International workshop on Agent-Mediated Electronic Commerce and Trading Agents Design and Analysis (AMEC/TADA) 2015.

2014

Shani Alkoby, David Sarne and Esther David, Manipulating Information Providers Access to Information in Auctions, appear in TAAI 2014.

Thesis and Dissertation

2017

Shani Alkoby. Self-Interested Information Providers and Selective Information Disclosure in Multi-Agent Systems (2017).

2013

Shani Alkoby. On the Choice of Obtaining and Disclosing the Common Value in Auctions (2013).

Submitted Papers

Shani Alkoby, Avilash Rath, and Peter Stone, Ad hoc Teamwork and Moral Feedback as a Framework for Safe Agent Behavior.

Harel Yedidsion, **Shani Alkoby**, and Peter Stone, Chore division in autonomous vehicle convoy formation.

Working Papers

Shih-Yun Lo, **Shani Alkoby**, Benito Fernandez, and Peter Stone, Towards Safe Motion Planning in Human Workspaces: An Online Robust Multi-agent Approach.

Shani Alkoby, Maytal Saar-Tsechansky, and Peter Stone, Reputation as a means for fake news Eradication.

Students Advising

The University of Texas at Austin

Mentor for Avilash Rath, Undergrad student, Spring 2019.

Mentor for Manish Ravula, Master student, Spring 2018.

Mentor for Shih-Yun Lo, Ph.D. student, Spring 2018.

Bar-Ilan University

Mentor for Anatoliy Tsvetov, B.Sc., 2017.

Mentor for Dmitry Shklovsky, B.Sc., 2017.

References

Prof. Peter Stone

Professor, the University of Texas at Austin, Texas, USA

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Prof. David Sarne (Ph.D. advisor)

Professor, Bar-Ilan University, Ramat-Gan, Israel,

david.sarne@biu.ac.il

<http://u.cs.biu.ac.il/~sarned/>

Prof. Pingzhong Tang

Professor, Tsinghua University, Beijing, China,

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Prof. Sanmay Das

Professor, Washington University in St. Louis, Missouri, USA,

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<https://www.cse.wustl.edu/~sanmay/>

Prof. Sarit Kraus

Professor, Bar-Ilan University, Ramat-Gan, Israel,

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<https://u.cs.biu.ac.il/~sarit/index.html>