

Email: esterlivshits at gmail.com

Website: esterliv.com

Experience:

2020 - Present: Research associate, School of Informatics, University of Edinburgh, Scotland.

2019 - 2020: Postdoctoral fellow, Technion, Haifa, Israel.

2014 – 2020: Teaching assistant in charge (Network Security), Technion, Haifa, Israel.

August – October 2018: Research intern, IBM Research – Almaden, San Jose, California, USA.

2012 – 2014: Software development intern, Intel Corporation, Haifa, Israel.

Education:

2014 – 2019: Ph.D. in Computer Science (direct track), Technion, Israel.

- Research area: Database Theory
- Thesis Topic: The Complexity of Database Inconsistency Measures
- Research advisor: Prof. Benny Kimelfeld

2010 – 2014: B.Sc. in Information Systems Engineering (Computer Science Faculty), Technion, Israel.

- Cumulative average: 92.6
- Graduated summa cum laude

Publications:

Journal Articles

[1] **Ester Livshits**, Leopoldo E. Bertossi, Benny Kimelfeld, and Moshe Sebag. Query Games in Databases. In *SIGMOD Record*, 2021.

[2] **Ester Livshits**, Benny Kimelfeld, and Jef Wijsen. Counting Subset Repairs with Functional Dependencies. In *Journal of Computer and System Sciences (JCSS)*, 2021.

[3] **Ester Livshits**, Alireza Heidari, Ihab F. Ilyas, and Benny Kimelfeld. Approximate Denial Constraints. In *Proceedings of the VLDB Endowment (PVLDB)*, 2020.

[4] Benny Kimelfeld, **Ester Livshits**, and Liat Peterfreund. Counting and Enumerating Preferred Database Repairs. In *Theoretical Computer Science (TCS)*, 2020.

[5] **Ester Livshits**, Benny Kimelfeld, and Sudeepa Roy. Computing Optimal Repairs for Functional Dependencies. In *ACM Transactions on Database Systems (TODS)*, 45(1), 2020.

Conference Papers (Fully Reviewed)

[1] **Ester Livshits**, Rina Kochirgan, Segev Tsur, Ihab F. Ilyas, Benny Kimelfeld, and Sudeepa Roy. Properties of Inconsistency Measures for Databases. To appear in *SIGMOD* 2021.

[2] **Ester Livshits** and Benny Kimelfeld. The Shapley Value of Inconsistency Measures for Functional Dependencies. In *24th International Conference on Database Theory, ICDT*, March 23-26, 2021, Nicosia, Cyprus.

- [3] Nofar Carmeli, Martin Grohe, Benny Kimelfeld, **Ester Livshits** and Muhammad Tibi. Database Repairing with Soft Functional Dependencies. In *24th International Conference on Database Theory, ICDT*, March 23-26, 2021, Nicosia, Cyprus.
- [4] Alon Reshef, Benny Kimelfeld, and **Ester Livshits**. The Impact of Negation on the Complexity of the Shapley Value in Conjunctive Queries. In *ACM Symposium on Principles of Database Systems, PODS*, June 14-19, 2020, Portland, Oregon, USA.
- [5] **Ester Livshits**, Leopoldo E. Bertossi, Benny Kimelfeld, and Moshe Sebag. The Shapley Value of Tuples in Query Answering. In *23rd International Conference on Database Theory, ICDT*, March 30-April 2, 2020, Copenhagen, Denmark.
- [6] **Ester Livshits**, Benny Kimelfeld, and Sudeepa Roy. Computing Optimal Repairs for Functional Dependencies. In *ACM Symposium on Principles of Database Systems, PODS*, June 10-15, 2018, Houston, Texas, USA.
- [7] **Ester Livshits** and Benny Kimelfeld. Counting and Enumerating (Preferred) Database Repairs. In *ACM Symposium on Principles of Database Systems, PODS*, May 14-19, 2017, Chicago, Illinois, USA.
- [8] Benny Kimelfeld, **Ester Livshits**, and Liat Peterfreund. Detecting ambiguity in prioritized database repairing. In *20th International Conference on Database Theory, ICDT*, March 21-24, 2017, Venice, Italy.

Workshop papers (Reviewed)

- [1] Benny Kimelfeld, **Ester Livshits**, and Liat Peterfreund. Recognizing determinism in prioritized repairing of inconsistent databases. In *Proceedings of the 10th Alberto Mendelzon International Workshop on Foundations of Data Management*, May 8-10, 2016, Panama City, Panama.

Awards and Recognition:

2021: The ACM SIGMOD Research Highlight Award.

2019: First place in the Technion's Computer Science Department Research Day.

2017 – 2019: Technion Hiroshi Fujiwara cyber security research center graduate student scholarship.

Winter 2016 – 2017, 2017-2018, 2018-2019: Computer Science Faculty Excellence Scholarship.

2015 – 2016: Irwin and Joan Jacobs Fellowship for excellence in graduate studies and research.

2010 – 2014: 4 x Rector's List of Excellent Students, 2 x Dean's List of Excellent Students, Technion.

Invited Talks:

2019: The Shapley Value of Database Tuples. In *Emerging Challenges in Databases and AI Research (DBAI)*, Santa Cruz, Chile.

2018: Algorithmic Aspects of Least-Effort Database Repairing. In *CROSS Research Symposium*, UC Santa Cruz, CA, USA.

Research Activities:

PC member: PODS 2022.

Reviewer: The VLDB Journal 2021, TODS 2020, VLDB 2020, TOCS 2019, ICDT 2019, PODS 2018.