Julia Stoyanovich

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CURRENT AFFILIATIONS

NEW YORK UNIVERSITY   since 09/2018
    Assistant Professor, Computer Science & Engineering, *Tandon School of Engineering*
    Assistant Professor, *Center for Data Science*
    Founding Director, *Center for Responsible AI (R/AI)*
    Affiliated Faculty, *Center for Urban Science and Progress (CUSP)*
    Faculty in Residence, *NYU Tandon Future Labs*
    Consulting Fellow, *The Governance Lab (GovLab) at NYU*
    Steering Committee Member, *NYU Alliance for Public Interest Technology*

PAST ACADEMIC APPOINTMENTS

DREXEL UNIVERSITY, Philadelphia, PA   09/2013-08/2018
    Assistant Professor, Department of Computer Science
    College of Computing and Informatics

DREXEL UNIVERSITY, Philadelphia, PA   09/2012-08/2013
    Assistant Professor
    College of Information Science and Technology (The iSchool)

PRINCETON UNIVERSITY, Princeton, NJ   04/2016-05/2018
    Faculty Affiliate
    Center for Information Technology Policy (CITP)

SKOLTECH, Moscow, Russia   09/2012-05/2013
    Assistant Professor (part-time)
    Skolkovo Institute of Science and Technology

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA   11/2011-08/2012
    Visiting Scholar
    Department of Computer and Information Science

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA   11/2009-10/2011
    Postdoctoral Researcher, Computing Innovations Fellow
    Department of Computer and Information Science
    Supervised by Prof. Susan Davidson

COLUMBIA UNIVERSITY, New York, NY   09/2003-10/2009
    Graduate Research Assistant
    Department of Computer Science
    Supervised by Prof. Kenneth A. Ross

YAHOO! RESEARCH, New York, NY   Summer 2008
    Research Intern
    Community Systems Group
    Supervised by Dr. Sihem Amer-Yahia

YAHOO! RESEARCH, New York, NY   Summer 2007
    Research Intern
    Social Systems Group
    Supervised by Dr. Sihem Amer-Yahia

MAX-PLANCK INSTITUTE FOR INFORMATICS, Saarbruecken, Germany   Summer 2006
    Research Intern
    Databases and Information Systems Group
    Supervised by Prof. Gerhard Weikum

IBM ALMADEN RESEARCH CENTER, San Jose, CA   Summer 2005
    Research Intern
    Advanced Optimization Group
    Supervised by Dr. Volker Markl, Dr. Jun Rao, and Dr. Guy Lohman

INDUSTRY EXPERIENCE

ENCODA SYSTEMS, New York, NY   08/2001 - 08/2003
    Database developer and administrator

MEDIAPARTNERSHIPS.COM, New York, NY   08/2000 – 07/2001
    Web and database developer

JUNO ONLINE SERVICES, New York, NY   09/1998 – 08/2000
    Database developer

HEWLETT-PACKARD, Boeblingen, Germany   09/1997 – 01/1998
    Programmer-intern, medical equipment R&D

EDUCATION

COLUMBIA UNIVERSITY, New York, NY   09/2004-10/2009
    Ph.D. in Computer Science
    Thesis: "Search and Ranking in Semantically Rich Applications"
    Advised by Professor Kenneth A. Ross

COLUMBIA UNIVERSITY, New York, NY   09/2003-05/2004
    M.S. in Computer Science
    GPA 4.0/4.0
    Fully funded by a graduate research assistantship
    Advised by Professor Kenneth A. Ross

UNIVERSITY OF MASSACHUSETTS, Amherst, MA   09/1995-08/1998
    B.S. in Computer Science
    B.S. in Mathematics and Statistics
    Magna cum laude, GPA 3.73/4.0, Phi Kappa Phi Honor Society

PEER-REVIEWED JOURNAL PUBLICATIONS

My name and the names of students and postdoctoral researchers under my mentorship are highlighted in **boldface**.

[1] H. V. Jagadish, **J. Stoyanovich**, and B. Howe, "Covid-19 brings data equity challenges to the fore", *ACM Digital Government: Research and Practice*, vol. 2, no. 2, 2021, **Note:** to appear.

[2] A. Lewis and **J. Stoyanovich**, "Teaching responsible data science", *International Journal of Artificial Intelligence in Education (IJAIED)*, 2021, **Note:** Special Issue: The FATE of AI in Education: Fairness, Accountability, Transparency, and Ethics, forthcoming.

[3] **H. Ping**, **J. Stoyanovich**, and B. Kimelfeld, "Supporting hard queries over probabilistic preferences", *PVLDB*, vol. 13, no. 7, pp. 1134–1146, 2020. [Online]. Available: `http://www.vldb.org/pvldb/vol13/p1134-ping.pdf`.

[4] S. Schelter and **J. Stoyanovich**, "Taming technical bias in machine learning pipelines", *IEEE Data Eng. Bull.*, vol. 43, 2020, **Note:** to appear.

[5] **J. Stoyanovich**, J. J. Van Bavel, and T. V. West, "The imperative of interpretable machines", *Nature Machine Intelligence*, vol. 2, pp. 197–199, 2020. DOI: `https://doi.org/10.1038/s42256-020-0171-8`.

[6] S. Abiteboul and **J. Stoyanovich**, "Transparency, fairness, data protection, neutrality: Data management challenges in the face of new regulation", *J. Data and Information Quality*, vol. 11, no. 3, 15:1–15:9, 2019. DOI: `10.1145/3310231`. [Online]. Available: `https://doi.org/10.1145/3310231`, **Note:** authors in alphabetical order, impact factor 2.13.

[7] A. Asudeh, H. V. Jagadish, and **J. Stoyanovich**, "Towards responsible data-driven decision making in score-based systems", *IEEE Data Eng. Bull.*, vol. 42, no. 3, pp. 76–87, 2019. [Online]. Available: `http://sites.computer.org/debull/A19sept/p76.pdf`.

[8] **J. Stoyanovich** and B. Howe, "Nutritional labels for data and models", *IEEE Data Eng. Bull.*, vol. 42, no. 3, pp. 13–23, 2019. [Online]. Available: `http://sites.computer.org/debull/A19sept/p13.pdf`.

[9] A. Asudeh, H. V. Jagadish, G. Miklau, and **J. Stoyanovich**, "On obtaining stable rankings", *PVLDB*, vol. 12, no. 3, pp. 237–250, 2018. DOI: `10.14778/3291264.3291269`. [Online]. Available: `http://www.vldb.org/pvldb/vol12/p237-asudeh.pdf`.

[10] M. Drosou, H. V. Jagadish, E. Pitoura, and **J. Stoyanovich**, "Diversity in Big Data: A review", *Big Data*, vol. 5, no. 2, pp. 73–84, 2017. DOI: `10.1089/big.2016.0054`. [Online]. Available: `https://doi.org/10.1089/big.2016.0054`, **Note:** authors in alphabetical order, impact factor 2.106.

[11]   Y. Amsterdamer, S. B. Davidson, D. Deutch, T. Milo, **J. Stoyanovich**, and V. Tannen, "Putting lipstick on pig: Enabling database-style workflow provenance", *PVLDB*, vol. 5, no. 4, pp. 346–357, 2011. DOI: `10.14778/2095686.2095693`. [Online]. Available: `http://vldb.org/pvldb/vol5/p346%5C_yaelamsterdamer%5C_vldb2012.pdf`, **Note:** authors in alphabetical order.

[12]   J. Zheng, **J. Stoyanovich**, E. Manduchi, J. Liu, and C. J. S. Jr., "Annot-Compute: Annotation-based exploration and meta-analysis of genomics experiments", *Database*, vol. 2011, 2011. DOI: `10.1093/database/bar045`. [Online]. Available: `https://doi.org/10.1093/database/bar045`, **Note:** impact factor 3.978.

[13]   S. Amer-Yahia, M. Benedikt, L. V. S. Lakshmanan, and **J. Stoyanovich**, "Efficient network aware search in collaborative tagging sites", *PVLDB*, vol. 1, no. 1, pp. 710–721, 2008. DOI: `10.14778/1453856.1453934`. [Online]. Available: `http://www.vldb.org/pvldb/vol1/1453934.pdf`, **Note:** authors in alphabetical order.

[14]   **J. Stoyanovich** and I. Pe'er, "MutaGeneSys: Estimating individual disease susceptibility based on genome-wide SNP array data", *Bioinformatics*, vol. 24, no. 3, pp. 440–442, 2008. DOI: `10.1093/bioinformatics/btm587`. [Online]. Available: `https://doi.org/10.1093/bioinformatics/btm587`, **Note:** impact factor 4.328.

[15]   K. A. Ross, A. Janevski, and **J. Stoyanovich**, "A faceted query engine applied to archaeology", *Internet Archaeology*, 21 2007. [Online]. Available: `https://intarch.ac.uk/journal/issue21/3/toc.html`.

Peer-reviewed Conference Publications

[16]   **S. Grafberger**, **J. Stoyanovich**, and S. Schelter, "Lightweight inspection of data preprocessing in native machine learning pipelines", in *CIDR 2021, 11th Conference on Innovative Data Systems Research, Online Proceedings*, www.cidrdb.org, 2021.

 [0]   **F. A. Khan**, E. Manis, and **J. Stoyanovich**, "Translational tutorial: Fairness and friends", in *4th Annual Conference on Fairness, Accountability, and Transparency, ACM FAccT*, 2021, **Note:** forthcoming.

[17]   **A. Aghasadeghi**, **V. Z. Moffitt**, S. Schelter, and **J. Stoyanovich**, "Zooming out on an evolving graph", in *Proceedings of the 23nd International Conference on Extending Database Technology, EDBT*, 2020, pp. 25–36. DOI: `10.5441/002/edbt.2020.04`. [Online]. Available: `https://doi.org/10.5441/002/edbt.2020.04`.

[18]   S. Schelter, **Y. He**, **J. Khilnani**, and **J. Stoyanovich**, "FairPrep: Promoting data to a first-class citizen in studies on fairness-enhancing interventions", in *Proceedings of the 23nd International Conference on Extending Database Technology, EDBT*, 2020, pp. 395–398. DOI: `10.5441/002/edbt.2020.41`. [Online]. Available: `https://doi.org/10.5441/002/edbt.2020.41`.

[19]   A. Asudeh, H. V. Jagadish, **J. Stoyanovich**, and G. Das, "Designing fair ranking schemes", in *Proceedings of the 2019 International Conference on the Management of Data, SIGMOD*, ACM, 2019, pp. 1259–1276. DOI: `10.1145/3299869.3300079`. [Online]. Available: `https://doi.org/10.1145/3299869.3300079`.

[20] Y. Guan, A. Asudeh, P. Mayuram, H. V. Jagadish, **J. Stoyanovich**, G. Miklau, and G. Das, "MithraRanking: A system for responsible ranking design", in *Proceedings of the 2019 International Conference on the Management of Data, SIGMOD*, ACM, 2019, pp. 1913–1916. DOI: 10.1145/3299869.3320244. [Online]. Available: https://doi.org/10.1145/3299869.3320244, **Note:** demonstration.

[21] C. Sun, A. Asudeh, H. V. Jagadish, B. Howe, and **J. Stoyanovich**, "MithraLabel: Flexible dataset nutritional labels for responsible data science", in *Proceedings of the 28th International Conference on Information and Knowledge Management, CIKM*, ACM, 2019, pp. 2893–2896. DOI: 10.1145/3357384.3357853. [Online]. Available: https://doi.org/10.1145/3357384.3357853, **Note:** demonstration.

[22] **K. Yang**, V. Gkatzelis, and **J. Stoyanovich**, "Balanced ranking with diversity constraints", in *Proceedings of the 28th International Joint Conference on Artificial Intelligence, IJCAI*, ijcai.org, 2019, pp. 6035–6042. DOI: 10.24963/ijcai.2019/836. [Online]. Available: https://doi.org/10.24963/ijcai.2019/836.

[23] U. Cohen, B. Kenig, **H. Ping**, B. Kimelfeld, and **J. Stoyanovich**, "A query engine for probabilistic preferences", in *Proceedings of the 2018 International Conference on the Management of Data, SIGMOD*, ACM, 2018, pp. 1509–1524. DOI: 10.1145/3183713.3196923. [Online]. Available: https://doi.org/10.1145/3183713.3196923.

[24] B. Kenig, **L. Ilijasic**, **H. Ping**, B. Kimelfeld, and **J. Stoyanovich**, "Probabilistic inference over repeated insertion models", in *Proceedings of the 32nd Conference on Artificial Intelligence, AAAI*, AAAI Press, 2018, pp. 1897–1904. [Online]. Available: https://www.aaai.org/ocs/index.php/AAAI/AAAI18/paper/view/16252.

[25] B. Kimelfeld, P. G. Kolaitis, and **J. Stoyanovich**, "Computational social choice meets databases", in *Proceedings of the 27th International Joint Conference on Artificial Intelligence, IJCAI*, 2018, pp. 317–323. DOI: 10.24963/ijcai.2018/44. [Online]. Available: https://doi.org/10.24963/ijcai.2018/44, **Note:** authors in alphabetical order.

[26] **J. Stoyanovich**, **K. Yang**, and H. V. Jagadish, "Online set selection with fairness and diversity constraints", in *Proceedings of the 21th International Conference on Extending Database Technology, EDBT*, OpenProceedings.org, 2018, pp. 241–252. DOI: 10.5441/002/edbt.2018.22. [Online]. Available: https://doi.org/10.5441/002/edbt.2018.22.

[27] **K. Yang**, **J. Stoyanovich**, A. Asudeh, B. Howe, H. V. Jagadish, and G. Miklau, "A nutritional label for rankings", in *Proceedings of the 2018 International Conference on the Management of Data, SIGMOD*, ACM, 2018. DOI: 10.1145/3183713.3193568. [Online]. Available: https://doi.org/10.1145/3183713.3193568, **Note:** demonstration.

[28] B. Kenig, B. Kimelfeld, **H. Ping**, and **J. Stoyanovich**, "Querying probabilistic preferences in databases", in *Proceedings of the 36th Symposium on the Principles of Database Systems, PODS*, ACM, 2017, pp. 21–36. DOI: 10.1145/3034786.3056111. [Online]. Available: https://doi.org/10.1145/3034786.3056111, **Note:** authors in alphabetical order.

[29] **V. Z. Moffitt** and **J. Stoyanovich**, "Temporal graph algebra", in *Proceedings of The 16th International Symposium on Database Programming Languages, DBPL*, ACM, 2017, 10:1–10:12. DOI: 10.1145/3122831.3122838. [Online]. Available: `https://doi.org/10.1145/3122831.3122838`.

[30] **V. Z. Moffitt** and **J. Stoyanovich**, "Towards sequenced semantics for evolving graphs", in *Proceedings of the 20th International Conference on Extending Database Technology, EDBT*, 2017, pp. 446–449. DOI: 10.5441/002/edbt.2017.41. [Online]. Available: `https://doi.org/10.5441/002/edbt.2017.41`.

[31] **H. Ping**, J. Stoyanovich, and **B. Howe**, "DataSynthesizer: Privacy-preserving synthetic datasets", in *Proceedings of the 29th International Conference on Scientific and Statistical Database Management, SSDBM*, ACM, 2017, 42:1–42:5. DOI: 10.1145/3085504.3091117. [Online]. Available: `https://doi.org/10.1145/3085504.3091117`.

[32] **J. Stoyanovich**, B. Howe, S. Abiteboul, G. Miklau, A. Sahuguet, and G. Weikum, "Fides: Towards a platform for responsible data science", in *Proceedings of the 29th International Conference on Scientific and Statistical Database Management, SSDBM*, ACM, 2017, 26:1–26:6. DOI: 10.1145/3085504.3085530. [Online]. Available: `https://doi.org/10.1145/3085504.3085530`.

[33] **K. Yang** and **J. Stoyanovich**, "Measuring fairness in ranked outputs", in *Proceedings of the 29th International Conference on Scientific and Statistical Database Management, SSDBM*, ACM, 2017, 22:1–22:6. DOI: 10.1145/3085504.3085526. [Online]. Available: `https://doi.org/10.1145/3085504.3085526`.

[34] **V. Z. Moffitt**, **J. Stoyanovich**, S. Abiteboul, and G. Miklau, "Collaborative access control in WebdamLog", in *Proceedings of the 2015 International Conference on the Management of Data, SIGMOD*, ACM, 2015, pp. 197–211. DOI: 10.1145/2723372.2749433. [Online]. Available: `https://doi.org/10.1145/2723372.2749433`.

[35] M. Jacob, B. Kimelfeld, and **J. Stoyanovich**, "A system for management and analysis of preference data", *PVLDB*, vol. 7, no. 12, pp. 1255–1258, 2014. DOI: 10.14778/2732977.2732998. [Online]. Available: `http://www.vldb.org/pvldb/vol7/p1255-jacob.pdf`.

[36] S. Abiteboul, É. Antoine, G. Miklau, **J. Stoyanovich**, and J. Testard, "Rule-based application development using webdamlog", in *Proceedings of the 2013 International Conference on the Management of Data, SIGMOD*, ACM, 2013, pp. 965–968. DOI: 10.1145/2463676.2465251. [Online]. Available: `https://doi.org/10.1145/2463676.2465251`.

[37] S. B. Davidson, **X. Huang**, **J. Stoyanovich**, and X. Yuan, "Search and result presentation in scientific workflow repositories", in *Proceedings of the Conference on Scientific and Statistical Database Management, SSDBM*, ACM, 2013, 17:1–17:12. DOI: 10.1145/2484838.2484847. [Online]. Available: `https://doi.org/10.1145/2484838.2484847`.

[38] S. Gunawardena, R. O. Weber, and **J. Stoyanovich**, "Learning feature weights from positive cases", in *Proceedings of 21st International Conference on Case-Based Reasoning Research and Development, ICCBR*, ser. Lecture Notes in Computer Science, vol. 7969, Springer, 2013, pp. 134–148. DOI: 10.1007/978-3-642-39056-2_10. [Online]. Available: `https://doi.org/10.1007/978-3-642-39056-2%5C_10`.

[39]   **J. Stoyanovich**, S. Amer-Yahia, S. B. Davidson, M. Jacob, and T. Milo, "Understanding local structure in ranked datasets", in *Proceedings of 6th Biennial Conference on Innovative Data Systems Research, CIDR*, www.cidrdb.org, 2013. [Online]. Available: `http://cidrdb.org/cidr2013/Papers/CIDR13%5C_Paper51.pdf`.

[40]   **J. Stoyanovich**, P. S. Dhillon, S. B. Davidson, and **B. Lyons**, "Learning to explore scientific workflow repositories", in *Proceedings of the Conference on Scientific and Statistical Database Management, SSDBM*, ACM, 2013, 31:1–31:4. DOI: `10.1145/2484838.2484848`. [Online]. Available: `https://doi.org/10.1145/2484838.2484848`.

[41]   S. Abiteboul, É. Antoine, and **J. Stoyanovich**, "Viewing the web as a distributed knowledge base", in *Proceedings of the 28th International Conference on Data Engineering, ICDE*, IEEE Computer Society, 2012, pp. 1–4. DOI: `10.1109/ICDE.2012.150`. [Online]. Available: `https://doi.org/10.1109/ICDE.2012.150`.

[42]   S. B. Davidson, S. Khanna, S. Roy, **J. Stoyanovich**, V. Tannen, and Y. Chen, "On provenance and privacy", in *Proceedings of the 14th International Conference on Database Theory, ICDT*, ACM, 2011, pp. 3–10. DOI: `10.1145/1938551.1938554`. [Online]. Available: `https://doi.org/10.1145/1938551.1938554`.

[43]   S. B. Davidson, S. Khanna, V. Tannen, S. Roy, **J. Stoyanovich**, Y. Chen, and T. Milo, "Enabling privacy in provenance-aware workflow systems", in *Proceedings of the 5th Biennial Conference on Innovative Data Systems Research, CIDR*, www.cidrdb.org, 2011, pp. 215–218. [Online]. Available: `http://cidrdb.org/cidr2011/Papers/CIDR11%5C_Paper30.pdf`.

[44]   **J. Stoyanovich**, S. Amer-Yahia, and T. Milo, "Making interval-based clustering rank-aware", in *Proceedings of the 14th International Conference on Extending Database Technology, EDBT*, ACM, 2011, pp. 437–448. DOI: `10.1145/1951365.1951417`. [Online]. Available: `https://doi.org/10.1145/1951365.1951417`.

[45]   **J. Stoyanovich**, S. B. Davidson, T. Milo, and V. Tannen, "Deriving probabilistic databases with inference ensembles", in *Proceedings of the 27th International Conference on Data Engineering, ICDE*, IEEE Computer Society, 2011, pp. 303–314. DOI: `10.1109/ICDE.2011.5767854`. [Online]. Available: `https://doi.org/10.1109/ICDE.2011.5767854`.

[46]   **J. Stoyanovich**, M. Lodha, W. Mee, and K. A. Ross, "SkylineSearch: Semantic ranking and result visualization for PubMed", in *Proceedings of the 2011 International Conference on the Management of Data, SIGMOD*, ACM, 2011, pp. 1247–1250. DOI: `10.1145/1989323.1989467`. [Online]. Available: `https://doi.org/10.1145/1989323.1989467`.

[47]   **J. Stoyanovich**, W. Mee, and K. A. Ross, "Semantic ranking and result visualization for life sciences publications", in *Proceedings of the 26th International Conference on Data Engineering, ICDE*, IEEE Computer Society, 2010. DOI: `10.1109/ICDE.2010.5447931`. [Online]. Available: `https://doi.org/10.1109/ICDE.2010.5447931`.

[48]   **J. Stoyanovich** and S. Amer-Yahia, "Rank-aware clustering of structured datasets", in *Proceedings of the 18th Conference on Information and Knowledge Management, CIKM*, ACM, 2009, pp. 1429–1432. DOI: `10.1145/1645953.1646137`. [Online]. Available: `https://doi.org/10.1145/1645953.1646137`.

[49] S. Amer-Yahia, A. Galland, **J. Stoyanovich**, and C. Yu, "From del.icio.us to x.qui.site: Recommendations in social tagging sites", in *Proceedings of the 2008 International Conference on the Management of Data, SIGMOD*, ACM, 2008, pp. 1323–1326. DOI: `10.1145/1376616.1376766`. [Online]. Available: `https://doi.org/10.1145/1376616.1376766`.

[50] K. A. Ross and **J. Stoyanovich**, "Schema polynomials and applications", in *Proceedings of the 11th International Conference on Extending Database Technology, EDBT*, ser. ACM International Conference Proceeding Series, vol. 261, ACM, 2008, pp. 404–415. DOI: `10.1145/1353343.1353394`. [Online]. Available: `https://doi.org/10.1145/1353343.1353394`.

[51] K. A. Ross, A. Janevski, and **J. Stoyanovich**, "A faceted query engine applied to archaeology", in *Proceedings of the 31st International Conference on Very Large Data Bases, VLDB*, ACM, 2005, pp. 1334–1337. [Online]. Available: `http://www.vldb.org/conf/2005/papers/p1334-ross.pdf`.

[52] K. A. Ross and **J. Stoyanovich**, "Symmetric relations and cardinality-bounded multisets in database systems", in *Proceedings of the 30th International Conference on Very Large Data Bases, VLDB*, Morgan Kaufmann, 2004, pp. 912–923. DOI: `10.1016/B978-012088469-8.50080-2`. [Online]. Available: `http://www.vldb.org/conf/2004/RS23P2.PDF`.

INVITED PAPERS

[53] **J. Stoyanovich**, B. Howe, and H. Jagadish, "Responsible data management", *PVLDB*, vol. 13, no. 12, pp. 3474–3489, 2020. DOI: `10.14778/3415478.3415570`, **Note:** paper accompanying keynote presentation at the 46th International Conference on Very Large Data Bases, VLDB.

[54] **J. Stoyanovich**, "TransFAT: Translating fairness, accountability, and transparency into data science practice", in *Proceedings of the 1st International Workshop on Processing Information Ethically, PIE at CAiSE*, ser. CEUR Workshop Proceedings, vol. 2417, CEUR-WS.org, 2019. [Online]. Available: `http://ceur-ws.org/Vol-2417/paper1.pdf`.

PEER-REVIEWED WORKSHOP PUBLICATIONS

[55] **K. Yang**, **B. Huang**, **J. Stoyanovich**, and S. Schelter, "Fairness-aware instrumentation of preprocessing pipelines for machine learning", in *Proceedings of the Workshop on Human-In-the-Loop Data Analytics, HILDA at SIGMOD*, 2020. DOI: `https://doi.org/10.1145/3398730.3399194`. [Online]. Available: `https://dataresponsibly.github.io/documents/fairdags.pdf`.

[56] **A. Aghasadeghi** and **J. Stoyanovich**, "Generating evolving property graphs with attribute-aware preferential attachment", in *Proceedings of the 7th International Workshop on Testing Database Systems, DBTest at SIGMOD*, ACM, 2018. DOI: `10.1145/3209950.3209954`. [Online]. Available: `https://doi.org/10.1145/3209950.3209954`.

[57] L. Rodriguez, B. Salimi, **H. Ping**, **J. Stoyanovich**, and B. Howe, "MobilityMirror: Bias-adjusted transportation datasets", in *Proceedings of the 1st Workshop on Big Social Data and Urban Computing, BiDU at VLDB*, ser. Communications in Computer and Information Science, vol. 926, Springer, 2018, pp. 18–39. DOI: `10.1007/978-3-030-11238-7\_2`. [Online]. Available: `https://doi.org/10.1007/978-3-030-11238-7%5C_2`.

[58] **J. Stoyanovich**, **M. Gilbride**, and **V. Z. Moffitt**, "Zooming in on NYC taxi data with Portal", in *Poster Track of the 1st Workshop on Big Social Data and Urban Computing, BiDU at VLDB*, ser. CEUR Workshop Proceedings, vol. 2247, CEUR-WS.org, 2018. [Online]. Available: `http://ceur-ws.org/Vol-2247/poster15.pdf`.

[59] B. Howe, **J. Stoyanovich**, **H. Ping**, B. Herman, and M. Gee, "Synthetic data for social good", *Proceedings of Data for Good Exchange D4GX*, vol. abs/1710.08874, 2017. arXiv: `1710.08874`. [Online]. Available: `http://arxiv.org/abs/1710.08874`, **Note:** peer reviewed workshop but no published proceedings.

[60] B. Kenig, B. Kimelfeld, **H. Ping**, and **J. Stoyanovich**, "A database framework for probabilistic preferences", in *Proceedings of the 11th Alberto Mendelzon International Workshop on Foundations of Data Management and the Web, AMW*, ser. CEUR Workshop Proceedings, vol. 1912, CEUR-WS.org, 2017. [Online]. Available: `http://ceur-ws.org/Vol-1912/paper1.pdf`.

[61] **V. Z. Moffitt** and **J. Stoyanovich**, "Towards a distributed infrastructure for evolving graph analytics", in *Proceedings of the 6th Temporal Web Analytics Workshop, TempWeb at WWW*, ACM, 2016, pp. 843–848. DOI: `10.1145/2872518.2889290`. [Online]. Available: `https://doi.org/10.1145/2872518.2889290`.

[62] **J. Stoyanovich**, **L. Ilijasic**, and **H. Ping**, "Workload-driven learning of Mallows mixtures with pairwise preference data", in *Proceedings of the 19th International Workshop on Web and Databases, WebDB at SIGMOD*, ACM, 2016. DOI: `10.1145/2932194.2932202`. [Online]. Available: `https://doi.org/10.1145/2932194.2932202`.

[63] **J. Stoyanovich**, M. Jacob, and **X. Gong**, "Analyzing crowd rankings", in *Proceedings of the 18th International Workshop on Web and Databases, WebDB at SIGMOD*, ACM, 2015, pp. 41–47. DOI: `10.1145/2767109.2767110`. [Online]. Available: `https://doi.org/10.1145/2767109.2767110`.

[64] S. B. Davidson, **S. Lee**, and **J. Stoyanovich**, "Keyword search in workflow repositories with access control", in *Proceedings of the 5th Alberto Mendelzon International Workshop on Foundations of Data Management, AMW*, vol. 749, CEUR-WS.org, 2011. [Online]. Available: `http://ceur-ws.org/Vol-749/paper6.pdf`.

[65] **J. Stoyanovich**, S. Amer-Yahia, C. Marlow, and C. Yu, "Leveraging tagging to model user interests in del.icio.us", in *Proceedings of the Spring Symposium on Social Information Processing*, AAAI, 2008, pp. 104–109. [Online]. Available: `http://www.aaai.org/Library/Symposia/Spring/2008/ss08-06-020.php`.

[66] **J. Stoyanovich**, S. J. Bedathur, K. Berberich, and G. Weikum, "EntityAthority: Semantically enriched graph-based authority propagation", in *Proceedings of the 10th International Workshop on the Web and Databases, WebDB at SIGMOD*, 2007. [Online]. Available: `http://gemo.futurs.inria.fr/events/WebDB2007/Papers/p35.pdf`.

Working Papers

[67] **K. Yang**, J. Loftus, and **J. Stoyanovich**, "Counterfactually fair ranking for intersectional groups", *working paper*, 2021, **Note:** to be submitted to FORC.

[68] **M. Zehlike**, **K. Yang**, and **J. Stoyanovich**, "Fairness in ranking: A survey", *working paper*, 2021, **Note:** to be submitted to ACM Computing Surveys.

[69] M. Arenas, P. Bahamondes, and **J. Stoyanovich**, "A query language for temporal graph databases", *working paper*, 2020, **Note:** to be submitted to PVDLB.

[70] V. Chakraborty, **T. Delemazure**, B. Kimelfeld, P. G. Kolaitis, **K. Relia**, and **J. Stoyanovich**, "Algorithmic techniques for necessary and possible winners", *CoRR*, vol. abs/2005.06779, 2020. arXiv: `2005.06779`. [Online]. Available: `https://arxiv.org/abs/2005.06779`, **Note:** submitted to the ACM/IMS Transactions on Data Science, authors in alphabetical order.

[71] **J. Stoyanovich** and **A. Lewis**, "Teaching responsible data science: Charting new pedagogical territory", *CoRR*, vol. abs/1912.10564, 2019. arXiv: `1912.10564`. [Online]. Available: `http://arxiv.org/abs/1912.10564`, **Note:** under submission to the International Journal of Artificial Intelligence in Education, IJAIED.

Thesis

[72] **J. Stoyanovich**, "Search and ranking in semantically rich applications", PhD thesis, Columbia University, Department of Computer Science, 2010. [Online]. Available: `http://stoyanovich.org/documents/thesis.pdf`.

Patents

[73] S. Amer-Yahia, E. Gabrilovic, B. Pang, J. Stoyanovich, and C. Yu, *Social behavior analysis and inferring social networks for a recommendation system*, US Patent 8,073,794, assignee: Yahoo! Inc, 2011.

[74] W. Fan, G. Lohman, V. Markl, N. Megiddo, J. Rao, D. Simmen, and **J. Stoyanovich**, *Automatically and adaptively determining execution plans for queries with parameter markers*, US Patent 7,958,113, assignee: IBM, 2011.

Tutorials, Panels, and Workshop Reports

[75] H. V. Jagadish, F. Bonchi, T. Eliassi-Rad, L. Getoor, K. P. Gummadi, and **J. Stoyanovich**, "The responsibility challenge for data", in *Proceedings of the 2019 International Conference on the Management of Data, SIGMOD*, ACM, 2019, pp. 412–414. DOI: `10.1145/3299869.3314327`. [Online]. Available: `https://doi.org/10.1145/3299869.3314327`, **Note:** co-organizer and presenter at this plenary panel.

[76]   S. Abiteboul, M. Arenas, P. Barceló, M. Bienvenu, D. Calvanese, C. David, R. Hull, E. Hüllermeier, B. Kimelfeld, L. Libkin, W. Martens, T. Milo, F. Murlak, F. Neven, M. Ortiz, T. Schwentick, **J. Stoyanovich**, J. Su, D. Suciu, V. Vianu, and K. Yi, "Research directions for principles of data management, Dagstuhl perspectives workshop 16151)", *Dagstuhl Manifestos*, vol. 7, no. 1, pp. 1–29, 2018. DOI: `10.4230/DagMan.7.1.1`. [Online]. Available: `https://doi.org/10.4230/DagMan.7.1.1`, **Note:** workshop report contributor, by invitation.

[77]   **J. Stoyanovich**, B. Howe, and H. V. Jagadish, "Special session: A technical research agenda in data ethics and responsible data management", in *Proceedings of the 2018 International Conference on the Management of Data, SIGMOD*, ACM, 2018. DOI: `10.1145/3183713.3205185`. [Online]. Available: `https://doi.org/10.1145/3183713.3205185`, **Note:** co-organizer and presenter at this plenary panel.

[78]   **J. Stoyanovich**, B. Howe, H. V. Jagadish, and G. Miklau, "Panel: A debate on data and algorithmic ethics", *PVLDB*, vol. 11, no. 12, pp. 2165–2167, 2018. DOI: `10.14778/3229863.3240494`. [Online]. Available: `http://www.vldb.org/pvldb/vol11/p2165-stoyanovich.pdf`, **Note:** co-organizer and presenter at this plenary panel.

[79]   S. Abiteboul, G. Miklau, **J. Stoyanovich**, and G. Weikum, "Data, Responsibly (Dagstuhl Seminar 16291)", *Dagstuhl Reports*, vol. 6, no. 7, pp. 42–71, 2016. DOI: `10.4230/DagRep.6.7.42`. [Online]. Available: `https://doi.org/10.4230/DagRep.6.7.42`, **Note:** workshop co-chair, authors in alphabetical order.

[80]   **J. Stoyanovich**, S. Abiteboul, and G. Miklau, "Data, Responsibly: Fairness, neutrality and transparency in data analysis", in *Proceedings of the 19th International Conference on Extending Database Technology, EDBT*, OpenProceedings.org, 2016, pp. 718–719. DOI: `10.5441/002/edbt.2016.103`. [Online]. Available: `https://doi.org/10.5441/002/edbt.2016.103`, **Note:** peer-reviewed tutorial.

Conference and Workshop Proceedings

[81]   J. Stoyanovich and F. M. Suchanek, Eds., *Proceedings of the 18th International Workshop on Web and Databases, WebDB at SIGMOD*, ACM, 2015, ISBN: 978-1-4503-3627-7. [Online]. Available: `http://dl.acm.org/citation.cfm?id=2767109`, **Note:** workshop co-chair.

[82]   A. Ailamaki, S. Amer-Yahia, J. M. Patel, T. Risch, P. Senellart, and J. Stoyanovich, Eds., *Proceedings of the 14th International Conference on Extending Database Technology, EDBT*, ACM, 2011, ISBN: 978-1-4503-0528-0, **Note:** proceedings chair.

Selected Editorials and Popular Press

[83]   **F. Arif Khan**, E. Manis, and **J. Stoyanovich**, "Fairness and friends", *Data, Responsibly Comic Series*, vol. 2, 2021. [Online]. Available: `https://dataresponsibly.github.io/comics/`, **Note:** forthcoming.

[84]   **F. Arif Khan** and **J. Stoyanovich**, "Mirror, mirror", *Data, Responsibly Comic Series*, vol. 1, 2020. [Online]. Available: `https://dataresponsibly.github.io/comics/`.

[85] **J. Stoyanovich**, S. Kuyan, M. McDermott, M. Grillo, and M. Sloane, "Public engagement showreel, int 1894", *NYU Center for Responsible AI*, Nov. 2020. [Online]. Available: `https://dataresponsibly.github.io/documents/Bill1894Showreel.pdf`.

[86] **J. Stoyanovich**, "Testimony before the New York City Council Committee on Technology and the Commission on Public Information and Communication (COPIC)", *Data, Responsibly*, Feb. 2019. [Online]. Available: `https://dataresponsibly.github.io/documents/Stoyanovich_COPIC.pdf`.

[87] **J. Stoyanovich** and B. Howe, "Follow the data! Algorithmic transparency starts with data transparency", *The Ethical Machine*, Nov. 2018. [Online]. Available: `https://ai.shorensteincenter.org/ideas/2018/11/26/follow-the-data-algorithmic-transparency-starts-with-data-transparency`.

[88] **J. Stoyanovich** and B. Howe, "Refining the concept of a nutritional label for data and models", *Freedom to Tinker, Center for Information Technology Policy, Princeton University*, May 2018. [Online]. Available: `https://freedom-to-tinker.com/2018/05/03/refining-the-concept-of-a-nutritional-label-for-data-and-models`.

[89] **J. Stoyanovich**, "Testimony before the New York City Council Committee on Technology regarding Automated Processing of Data (Int. 1696-2017)", *Data, Responsibly*, Oct. 2017. [Online]. Available: `https://dataresponsibly.github.io/documents/Stoyanovich_VaccaBill.pdf`.

[90] **J. Stoyanovich** and E. P. Goodman, "Revealing algorithmic rankers", *Freedom to Tinker, Center for Information Technology Policy, Princeton University*, Aug. 2016. [Online]. Available: `http://freedom-to-tinker.com/2016/08/05/revealing-algorithmic-rankers`.

[91] S. Abiteboul, X. L. Dong, O. Etzioni, D. Srivastava, G. Weikum, **J. Stoyanovich**, and F. M. Suchanek, "The elephant in the room: Getting value from Big Data", in *Proceedings of the 18th International Workshop on Web and Databases, WebDB at SIGMOD*, ACM, 2015, pp. 1–5. DOI: `10.1145/2767109.2770014`. [Online]. Available: `https://doi.org/10.1145/2767109.2770014`, **Note:** editorial in WebDB 2015 proceedings.

[92] S. Abiteboul and **J. Stoyanovich**, "Plaidoyer pour une analyse responsable des données", *Le Monde*, Oct. 2015. [Online]. Available: `https://www.lemonde.fr/sciences/article/2015/10/12/plaidoyer-pour-une-analyse-responsable-des-donnees_4788082_1650684.html`, **Note:** op-ed in French.

[93] S. Abiteboul and **J. Stoyanovich**, "The data, responsibly manifesto", *ACM SIGMOD blog*, Nov. 2015. [Online]. Available: `http://wp.sigmod.org/?p=1900`.

Funding

Award Period: 09/01/2019-08/31/24. Award Amount $3,000,000 total.
Stoyanovich spearheaded proposal development and writing.

[3] Partner Investigator, **ARC** (Australian Research Council) "ARC Centre of Excellence for Automated Decision-making in Society".
Award Period: 09/2021-08/2026. No monetary award, participation in research and educational activities.

[4] Lead PI, **NSF** Grant No. 1750179: "**CAREER**: Querying evolving graphs".
Award Period: 02/01/2018-01/31/2023. Award Amount $549,747 total.

[5] Lead PI, **NSF** Grant No.1741047: "BIGDATA: F: Collaborative Research: Foundations of Responsible Data management", with B. Howe (University of Washington), G. Miklau (UMass Amherst), H. V. Jagadish (University of Michigan).
Award period: 09/01/2017-08/31/2021. Award amount: $1,500,000 total / $500,000 to Stoyanovich.

[6] Co-PI, **NSF** Grant No. 1813888: NSF-BSF: III: Small: Collaborative Research: Databases Meet Computational Social Choice", with P. Kolaitis (University of California San Diego) and B. Kimelfeld (Technion, Israel).
Award Period: 07/15/2018-07/14/2021. Award amount: $500,000 total / $233,587 Co-PI Stoyanovich.

[7] Lead PI, **NSF** Grant No.1464327: "**CRII**: Managing preference data".
Award Period: 05/01/2015-04/30/2018. Award amount $190,888.

[8] Lead PI (US), **BSF** (US-Israel bi-national science foundation) Grant No. 2014391: "Aggregation methods for partial preferences", with B. Kimelfeld (Technion, Israel).
Award Period: 09/01/2015-08/31/2017. Award amount $75,000.

[9] Lead PI, **NSF** Grant No. 1539856: "USICCS (BSF supplement): Aggregation methods for partial preferences".
Award Period: 09/01/2015-08/31/2017. Award amount $50,000.

[10] Lead PI, **Drexel** Office of the Provost and the Steinbright Career Development Center. Research co-op award.
Award Period: 04/07/2014-08/31/2014. Award amount $7,215.

[11] Fellow, **NSF** Grant No. 0937060: "**CRA Computing Innovations Fellowship**: Data exploration in biological repositories", with Susan B. Davidson as mentor.
Award Period: 11/01/2009-10/31/2011. Award amount $267,500.

[12] Lead PI. **Google Research Award**: Identifying ranked agreement among raters.
Award Period: 12/01/2011-12/31/2012. Award amount $10,000.

Teaching: Full Courses

New York University
 DS-UA 202 **Responsible Data Science** (Center for Data Science)
 Spring 2021

 DS-GA 1017 **Responsible Data Science** (Center for Data Science)
 Spring 2021

CS-GY 6083A **Principles of Database Systems** (Computer Science & Engineering, Tandon) *Fall 2020*

DS-GA 3001.009 **Responsible Data Science** (Center for Data Science)
Spring 2020, Spring 2019

CS-GY 6513A **Big Data** (Computer Science & Engineering, Tandon)
Fall 2019

DREXEL UNIVERSITY
CS 500 **Fundamentals of Databases** (Computer Science)
Winter 2018, Winter 2017, Summer 2016, Summer 2015, Summer 2014

CS 461 **Database Systems** (Computer Science)
Spring 2018, Spring 2017, Spring 2016, Spring 2015

INFO 2019 **Database Systems** (Information Science)
Winter 2013, Fall 2012

UNIVERSITY OF PENNSYLVANIA, Computer and Information Science
CIS 121 **Data Structures and Algorithms with Java**
Spring 2012
CIS 650 **Advanced Topics in Databases**
Fall 2010

COLUMBIA UNIVERSITY, Computer Science
COMS 1007 **Object-oriented programming and design in Java**
Summer 2009

TEACHING: SUMMER SCHOOLS

UNIVERSITÀ DEGLI STUDI ROMA TRE, Rome, Italy, 06/2019
Invited course: **Responsible Data Science**, as part of *Advanced Topics in Computer Science*, https://sites.google.com/view/roma3atcs/home

EDBT SUMMER SCHOOL, Genova Nervi, Italy, 09/2017
Invited course: **Data, Responsibly: Fairness, Neutrality and Transparency in Data Analysis**, as part of Summer School *Adding Value to Data*, co-taught with Serge Abiteboul. http://edbtschool2017.dibris.unige.it

AMW DATA SCIENCE SCHOOL, Montevideo, Uruguay, 06/2017.
Invited tutorial: **Data, Responsibly**. https://www.fing.edu.uy/inco/eventos/AMW17/school.html

JOINT RUSSIR /EDBT SUMMER SCHOOL, Saint Petersburg, Russia, 08/2011.
Course: **Top-k processing for search and information discovery in social applications**, as part of Summer School *Web of Data*, co-taught with Sihem Amer-Yahia. http://romip.ru/edbt-russir2011

Advising and Mentoring

Postdoctoral Researchers

- Eric Corbett, New York University, Provostial postdoctoral fellow, 09/2020-

- Lovro Ilijasic, Drexel University, postdoctoral researcher, 11/2015-11/2016, current position: Machine Learning Engineer, Toptal

Doctoral Students

- Vera Z. Moffitt, Drexel University, graduated May 2017, current position: Research Manager, Lockheed Martin

- Ke Yang, New York University, Tandon CSE, expected graduation May 2021

- Haoyue Ping, New York University, Tandon CSE, expected graduation May 2021

- Amir Pouya Aghasadeghi, New York University, Tandon CSE, expected graduation May 2022

- Kunal Relia, New York University, Tandon CSE, expected graduation May 2022

- Andew Bell, New York University, Tandon CSE, joined in Fall 2020

- Lucius Bynum, New York University, Center for Data Science, joined in Fall 2020

Doctoral Committee

- New York University: Zhouhan Chen, Center for Data Science (qualifying exam committee, advised by Prof. Joshua Tucker)

- Drexel University: Linge Bai (thesis proposal committee, advised by Prof. Breen, CS); Sidath Gunawardena (thesis proposal committee, advised by Prof. Weber, Informatics); Bochao Zhang (pre-proposal exam committee, advised by Prof. Uri Hershberg, Biomedical Engineering); Adam Craig (pre-proposal exam committee, advised by Prof. Uri Hershberg, Biomedical Engineering)

Visiting Students

- Stefan Grafberger, Masters thesis student, Fall 2020, visiting (virtually) from the Technical University of Munich, Germany

- Meike Zehlike, New York University, Tandon CSE, Fall 2019, visiting PhD student from Max-Planck Institute for Software Systems, Germany

- Theo Delemazure, New York University, Center for Data Science, 03/2019-08/2019, visiting MS student from ENS Paris, France

- Xiaocheng Huang, University of Pennsylvania, 09/2010-08/2011, visiting PhD student from Nankai University, China, co-advised with Prof. Susan Davidson

Masters Students

- New York University, Center for Data Science: Alene Rhea, Lauren D'Arinzo, Kelsey Markey, Biao Huang, Yuxuan He, Jatin Khilnani

- New York University, Tandon CSE: Samasth Norway Ananda, Vishnu Thakral, Ankush Jain

- Drexel University: Matthew Bucci, Akhil Kapoor, Sanjana Raj, Matthew Gilbride, Jugal Lodya, Priyasmita Bagchi

- University of Pennsylvania: Brian Lyons

Undergraduate Students

- Drexel University: Halima Olapade, Charles Gilliam, Simona D'Avanzo, Shishir Kharel

Groups

- Faculty mentor, Applied Research Innovations in Science and Engineering (ARISE) at **NYU Tandon**, STEM Research Opportunity for 10th and 11th Graders, Summer 2019 and Summer 2020
- Faculty mentor, Women in Computing Society (WiCS), Drexel University, 2015-16
- Faculty mentor, Research experience for high school Computer Science teachers (ReThink), Drexel University, Summer 2014

Honors and Awards

- ACM Senior Member, 2020
- Government Technology and MetroLab Network Innovation of the Month, 09/2020, responsible data science comic book: "Comic Book Bridges Gap Around Education in AI, Ethics" https://metrolabnetwork.org/projects/innovation-of-the-month/
- NSF CAREER Award, 2018
- Government Technology and MetroLab Network Innovation of the Month, 11/2017, open source Data Synthesizer tool: "University Researchers Use 'Fake' Data for Social Good" https://metrolabnetwork.org/projects/innovation-of-the-month/
- NSF CRA Computing Innovations Fellow, 2009-2011
- Michelman award for service to the Computer Science Department, Columbia University, 2008
- DuBois Undergraduate Reseach Scholarship, University of Massachusetts, Amherst, 1997

Keynotes and Distinguished Talks

- 24st International Conference on Extending Database Technology (EDBT), keynote presentation, 03/2021 (forthcoming)
- 46th International Conference on Very Large Data Bases (VLDB), keynote presentation, 8/31/2020
- Women in Data Science, NYC, keynote presentation on "Ethical Data Science", 08/13/2020
- The International Association of Scientific, Technical and Medical Publishers (STM), keynote presentation at the 2020 annual conference, 4/30/2020
- Global Alliance for Genomics and Health (GA4GH), keynote presentation at the 7th Plenary Meeting, 10/22/2019
- Research Data Alliance (RDA), keynote presentation at the 13th Plenary Meeting, 4/2/2019

- International Workshop on Processing Information Ethically (PiE), co-located with CAiSE 2019, keynote presentation, 6/4/2019

- International Workshop on Software Fairness (FairWare), co-located with ICSE 2018, keynote, 05/29/2018

- University of Luxembourg, distinguished lecture, 12/07/2017

Selected Invited Talks

- OCAD University, Future of Work and Disability Study Group, panel presentation, 11/17/2020

- Belmont University, 4th Annual Celebrating the Women of Physical Science Event, keynote presentation, 11/2/2020

- NYC Media Lab Summit 2020, "AI, Responsibly", workshop presentation, 10/7/2020

- EthicalGEO, "Location Tech Task Force Blue-Ribbon Panel: Data Quality and Building Trust", panel presentation, 8/6/2020

- IEEE TechEthics Panel, "Data Science in the Time of COVID-19", panel presentation, 05/28/2020

- The Knowledge Graph Conference, "Frontiers in Data Intelligence", panel presentation, 05/07/2020

- New York Encounter 2020 Exhibit, "Humans and Machines: Behind the Curtains of Artificial Intelligence", 02/15/2020

- University of Michigan, Institute for Social Research, 1/21/2020

- University of Michigan, Michigan Institute for Data Science and Center for Ethics, Society, and Computing, 1/20/2020

- National Intergovernmental Audit Forum (NAIF) Executive Roundtable "Accountability in the Age of Artificial Intelligence", 10/25/2019

- Law Commission of Ontario, Government use of AI, 12/10/2019

- Brown University, Data Science Initiative, 10/16/2019

- Data for Policy Conference, invited panel presentation on "Sustainable Innovation in the Public/Government Sector", 06/11/2019

- University of Maryland, Computational Linguistics and Information Processing, 5/1/2019

- Google Research NYC seminar, 2/13/2019

- New York State Bar Association, panel presentation, 1/23/2019

- George Washington University, Computer Science Department colloquium, 12/5/2019

- Harvard University, Data Science guest lecture, 11/28/2018

- Data Transparency Lab conference, panel presentation, 12/12/2017

- Princeton University, Center for Information Technology Policy seminar, 2/28/2017

- Oxford, Information Systems Seminar, 1/19/2016

- Kings College London, Informatics seminar, 1/18/2016

- University of Helsinki, CS colloquium, 9/11/2014

- Aalto University, ICS forum, 9/10/2014
- University of Chicago, CS colloquium, 3/15/2013
- Portland State University, CS colloquium, 4/16/2012
- Florida International University, CIS colloquium, 4/6/2012
- VirginiaTech, CS colloquium, 3/20/2012
- Max Planck Institute for Software Systems, SWS colloquium, 3/15/2012
- University of Waterloo, CS colloquium, 2/15/2012
- Stevens Institute of Technology, CS colloquium, 1/23/2012
- Max Planck Institute for Informatics, Databases and Information Systems, 12/13/2011
- INRIA/Telecom ParisTech, DBWeb-Webdam seminar, 12/5/2011
- University of Pittsburgh, CS colloquium, 11/28/2011
- Harvard University, Systems Research at Harvard (SYRAH) colloquium, 10/28/2011
- MIT, Computer Science and Artificial Intelligence Laboratory colloquium, 10/27/2011
- Boston University, Hariri seminar, 10/26/2011
- Yandex, Moscow, Russia, Research colloquium, 8/23/2011
- Northeastern University, CCS colloquium, 3/18/2011
- Illinois Institute of Technology, CS colloquium, 2/28/2011
- IBM Watson, Research Colloquium, 2/11/2011
- Yahoo! Research Barcelona, 12/16/2010
- Polytechnic Institute of NYU, CSE colloquium, 04/06/2010
- University of Southern California, CS colloquium, 03/01/2010
- University of Pennsylvania, Computational Biology and Informatics colloquium, 01/21/2010
- Technical University of Berlin, Database and Information Management, 01/19/2009

Selected Invited Talks at New York University

- School of Arts and Sciences, "Minds and Machines, Reloaded", invited presentation on "AI in the public sphere", 05/15/2020
- 23rd Annual Employment Law Workshop for Federal Judges, NYU Law School and Federal Justice Center, invited presentation on "Data Science in Employment", 3/13/2020
- HR Policy Association and NYU Center for Labor and Employment Law, Annual Labor and Employment conference, invited presentation on "A.I. in the Workplace: Legal and Policy Issues", 10/24/2019
- New York University, Fifth Annual Ethics, Compliance and Risk Symposium, invited presentation on "The Ethical Framework of AI", 4/9/2019

PROFESSIONAL ACTIVITIES

Selected Policy Engagements

- Member of the **IEEE-USA AI and Autonomous Systems Policy Committee**, 08/2019-, `https://ieeeusa.org/volunteers/committees/aiaspc`

- Member of the Advisory Group for AI and Administrative Decision-Making Project, **Law Commission of Ontario**, 12/2019-

- Member for the **New York City Algorithmic Decision Systems Task Force**, appointed by the Mayor in response to Local Law 49 of 2018, 05/2018-12/2019, `https://www1.nyc.gov/site/adstaskforce/index.page`

- Invited participant, **Forum on Transatlantic Cooperation on Artificial Intelligence**, Brookings & CEPS, 06/2020

- Invited participant, **New York Academy of Science** Roundtable on AI, 3/31/2020, and Roundtable on AI regulation, 5/1/2020

- Invited participant, **World Economic Forum** workshop on AI regulation, 05/2020, `https://www.weforum.org/projects/reimagining-regulation-for-the-age-of-ai`

- Invited participant, **New York Academy of Science** Roundtable on AI, 3/31/2020, and Roundtable on AI regulation, 5/1/2020

- Invited participant, **Global Forum on AI for Humanity** (GFAIH), Paris, France, 10/2019, `https://namr.com/event/global-forum-for-humanity-gfaih-2/`

- Invited speaker, **North Dakota Data Privacy Forum**, 5/15/2019

- Member of the **ACM Code of Ethics and Professional Conduct** task force, 2018, `https://www.acm.org/binaries/content/assets/about/acm-code-of-ethics-booklet.pdf`

National Leadership

- NSF 3rd Translational Data Science Workshop co-organizer, New York, NY, October 2018 `http://nebigdatahub.org/3rd-tds-workshop/`

- NSF Big Data + Hubs/Spokes PI meeting co-organizer, Washington, DC, 2018

- Workshop co-organizer: FIDES: Institute Framework for Integrative Data Equity Systems, March 25-26, 2020, `https://midas.umich.edu/fides-workshop-program`

- Mozilla Foundation Responsible CS Challenge jugde, 2019 `https://foundation.mozilla.org/en/initiatives/responsible-cs`

- Invited panelist on "AI, Data, & Ethics" at the Midwest NSF Big Data Hub, 11/2018

- Fulbright Enrichment Seminar organizer "Big Data for the Public Good: Innovations in Civic Engagement", Philadelphia, PA 04/2018, 05/2018

Conference and Workshop Organization

- Program committee co-chair, 25th International Conference on Extending Database Technology, EDBT 2022

- Tutorials co-chair, ACM SIGMOD 2021

- Workshop co-chair: 5th Workshop on Data Management for End-to-End Machine Learning (DEEM) at ACM SIGMOD 2021, `http://deem-workshop.org`

- Workshop co-chair: 4th Workshop on Data Management for End-to-End Machine Learning (DEEM) at ACM SIGMOD 2020, `http://deem-workshop.org/2020`

- Steering committee member, ACM Conference on Fairness, Accountability and Transparency (FAccT), formerly ACM FAT*, `https://facctconference.org/2020/`, since 09/2017-

- Workshop co-chair, 18th International Workshop on Web and Databases (WebDB) at ACM SIGMOD 2015, `https://dblp.org/db/conf/webdb/webdb2015`

- Dagstuhl seminar co-organizer: Data, Responsibly, July 2016, `https://www.dagstuhl.de/en/program/calendar/semhp/?semnr=16291`

- Workshop selection co-chair, ACM SIGMOD 2017

- Workshop selection co-chair, EDBT/ICDT 2017

- Panels selection co-chair, IEEE ICDE 2017

- New Researcher Symposium co-chair, ACM SIGMOD 2015, ACM SIGMOD 2016

- Proceedings chair: EDBT/ICDT 2011

Reviewing

- Area editor: Information Systems, since 2016

- Editorial board member: Data & Policy Journal, Cambridge, since 2019

- Big Data 2019, Vice Chair in Big Data Security, Privacy and Trust

- ACM FAT* 2019, Track Co-Chair, Systems

- Review board member: PVLDB (2016-17, 2014-15, 2012-13)

- Senior program committee member: IJCAI 2016 (AI and Web track)

- Program committee member (conferences): ACM SIGMOD (2021, 2019, 2018, 2017, 2016, 2015, 2013), ACM SIGIR (2014, 2013), ACM WSDM (2015), IEEE ICDE (2021, 2013, 2011), ICDT (2019), CIDR (2018, 2019), EDBT (2016, 2013, 2011), ICDT (2019), WWW (2013, 2012), SSDBM (2014, 2012), IEEE CIKM 2010, VLDB 2009, D4GX (2017, 2018), ACM FAT* (2018)

- Program committee member (workshops): ConPro (2018, 2019), FATML 2017, ExploreDB 2016, HotCloud 2016, AMW 2012, WebDB (2012, 2011), DBSocial 2012, SMANE 2012, SIASP 2010

- Reviewer: IEEE TKDE (2013, 2012, 2011), CACM 2012, ACM TODS (2012, 2011, 2008), ACM TWeb (2012), ACM TOSEM 2010, Bioinformatics 2011, Information Systems (2013, 2012), SNAM (2014, 2011)

LEADERSHIP

- Community organizer, spearheaded the establishment of the first dual-language Russian-English program at a public elementary school in Manhattan. The effort started in Fall 2015, the program opened its doors at P.S. 145M in Fall 2017.

- Senator, Columbia University Senate, member of the Senate Education Committee, 09/2006-05/2007

- Steering Committee Member, Columbia University Graduate Student Advisory Council, 09/2004 – 05/2009

- Dean Search Committee, Columbia University, School of Engineering and Applied Science, Spring 2008

LANGUAGES

Fluent in English, German, Russian, and Serbian. Intermediate Italian.