Julia Stoyanovich

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Current Affiliations

New York University since 09/2021
Institute Associate Professor, Computer Science & Engineering,
Tandon School of Engineering
Associate Professor, *Center for Data Science*
Founding Director, *Center for Responsible AI (R/AI)*
Affiliated Faculty, NYU Lead for Inclusive Artificial Intelligence, *NYU-KAIST*
Affiliated Faculty, *Visualization, Imaging, and Data Analysis Center (VIDA)*
Affiliated Faculty, *Center for Urban Science and Progress (CUSP)*
Steering Committee Member, *NYU Alliance for Public Interest Technology*

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

Past Academic Appointments

New York University 09/2018-08/2021
Assistant Professor, Computer Science & Engineering, *Tandon School of Engineering*
Assistant Professor, *Center for Data Science*

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

Max-Planck Institute for Informatics, Saarbruecken, Germany Summer 2006
Research Intern
Databases and Information Systems Group
Supervised by Prof. Gerhard Weikum

Honors and Awards

- **Presidential Early Career Award for Scientists and Engineers (PECASE), 2025** by nomination from the National Science Foundation (NSF)
- Computing Research Association (CRA) Future CRA Leaders Program, 2024
- ACM SIGMOD Research Highlight, 2024
- ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (ACM EAAMO), Best AI Track Paper Award, 2023
- 49th Conference on Very Large Data Bases (VLDB), Best Experiment, Analysis, & Benchmark Paper Runner-up Award, 2023
- 49th Conference on Very Large Data Bases (VLDB), Best Demonstration Runner-up Award, 2023
- Institute Associate Professor of Computer Science & Engineering, Tandon School of Engineering, New York University, 09/2021-08/2024 and 09/2024-08/2027
- 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 Research Scholarship, University of Massachusetts, Amherst, 1997

Industry Experience

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

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

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

Selected Professional Activities

- Witness, **New York State Standing Committee on Internet and Technology, Public Hearing on Artificial Intelligence in High-Risk Contexts**, 01/15/2026, https://www.nysenate.gov/calendar/public-hearings/january-15-2026/public-hearing-discuss-risks-solutions-and-best-practices

- Witness, **US House of Representatives Committee on Science, Space, and Technology, Research & Technology Subcommittee Hearing - DeepSeek: A Deep Dive**, 04/08/2025, https://science.house.gov/2025/4/deepseek-a-deep-dive
- Task force chair, **CAN-ASC-6.2 Accessible and Equitable AI Systems Standards Development Committee**, 02/2024-05/2025, https://accessible.canada.ca/centre-of-expertise/information-and-communication-technologies
- Member of the **Advisory Board of the SIPRI-UNODA initiative on Responsible AI for Peace and Security**, 03/2023-, https://disarmament.unoda.org/responsible-innovation-ai/about/
- Member of the **IEEE-USA AI and Autonomous Systems Policy Committee**, 08/2019-, https://ieeeusa.org/volunteers/committees/aiaspc
- Invited panelist, **Responsible AI for Peace and Security**: Meeting the Moment in Tackling the Risks Presented by Misuse of Civilian AI, **United Nations General Assembly First Committee Side Event**, 10/18/2024, https://disarmament.unoda.org/responsible-innovation-ai/about/
- Invited panelist, **United Nations, 62nd Session Of The Commission For Social Development - CSocD62**, panel on "The Influence of Digital Transformation on Inclusive Growth and Development: A Path to Realizing Social Justice", 02/07/2024 https://social.desa.un.org/csocd/62nd
- Invited participant, **US Senate AI Insight Forum on High Impact AI**, 11/01/2023. https://www.schumer.senate.gov/newsroom/press-releases/statements-from-the-fourth-bipartisan-senate-forum-on-artificial-intelligence
- NSF Workshop co-organizer **"Developing Dramaturgical Strategies for AI and XR alongside NYC's Contemporary Performance Scene,"** New York, NY, September 28-29, 2024 https://www.aiperformancelab.com/
- NSF Workshop organizer **"Community-Informed Policies and Best-Practices for the National Artificial Intelligence Research Resource,"** New York, NY, July 29-31, 2024 https://airesponsibly.net/nairr_2024/
- NIH Workshop co-organizer **"Towards an Ethical Framework for Artificial, Intelligence in Biomedical and Behavioral Research: Transparency for Data and Model Reuse,"** Bethesda, MD, January 31 - Feburary 1, 2024 https://www.scgcorp.com/ethicalframework2024/
- Member for the **New York City Automated 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
- Member of the **ACM Code of Ethics and Professional Conduct** international task force, 2018

Peer-reviewed Journal Publications

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

[1] **F. Arif Khan**, **D. Herasymuk**, **N. Protsiv**, and **J. Stoyanovich**, "Still more shades of Null: An evaluation suite for responsible missing value imputation", *Proc. VLDB Endow.*, vol. 18, no. 9, 2025. DOI: 10.14778/3746405.3746416.

[2] T. Hernandez-Boussard, A. Y. Lee, **J. Stoyanovich**, and L. Biven, "Promoting transparency in AI for biomedical and behavioral research", *Nature Medicine*, 2025. DOI: 10.1038/s41591-025-03680-0.

[3] **V. Pliatsika**, **J. Fonseca**, **K. Akhynko**, **I. Shevchenko**, and **J. Stoyanovich**, "ShaRP: Explaining rankings and preferences with shapley values", *Proc. VLDB Endow.*, vol. 18, no. 11, pp. 4131–4143, 2025. DOI: 10.14778/3749646.3749682.

[4] **T. Zakharchenko**, **A. Bell**, **N. Drushchak**, **O. Konopatska**, **F. A. Khan**, and **J. Stoyanovich**, "Estimating the impact of the Russian invasion on the displacement of graduating high school students in Ukraine", *Nature Communications*, 2025. DOI: https://doi.org/10.1057/s41599-025-04675-5.

[5] **A. Aghasadeghi**, J. V. den Bussche, and **J. Stoyanovich**, "Temporal graph patterns by timed automata", *VLDB J.*, vol. 33, no. 1, pp. 25–47, 2024. DOI: 10.1007/S00778-023-00795-Z.

[6] F. S. Campbell, A. Silberstein, **J. Stoyanovich**, and Y. Moskovitch, "Query refinement for diverse top-k selection", *Proc. ACM Manag. Data*, vol. 2, no. 3, May 2024. DOI: 10.1145/3654969.

[7] S. Guha, **F. A. Khan**, **J. Stoyanovich**, and S. Schelter, "Automated data cleaning can hurt fairness in machine learning-based decision making", *IEEE Transactions on Knowledge and Data Engineering*, vol. 36, no. 12, pp. 7368–7379, 2024. DOI: 10.1109/TKDE.2024.3365524.

[8] **L. Rosenblatt**, B. Herman, **A. Holovenko**, **W. Lee**, J. R. Loftus, **E. McKinnie**, **T. Rumezhak**, **A. Stadnik**, B. Howe, and **J. Stoyanovich**, "Epistemic parity: Reproducibility as an evaluation metric for differential privacy", *SIGMOD Rec.*, vol. 53, no. 1, pp. 65–74, 2024. DOI: 10.1145/3665252.3665267.

[9] **A. Bell**, O. Nov, and **J. Stoyanovich**, "Think about the stakeholders first! Towards an algorithmic transparency playbook for regulatory compliance", *Data & Policy*, vol. 5, 2023. DOI: 10.1017/dap.2023.8.

[10] D. Dominguez Figaredo and **J. Stoyanovich**, "Responsible AI literacy: A stakeholder-first approach", *Big Data & Society*, 2023. DOI: 10.1177/205395172312199.

[11] H. Jagadish, **J. Stoyanovich**, and B. Howe, "The many facets of data equity", *ACM Journal of Data and Information Quality*, vol. 14, pp. 1–21, 4 2023. DOI: https://doi.org/10.1145/3533425.

[12] J. Li, Y. Moskovitch, **J. Stoyanovich**, and H. V. Jagadish, "Query refinement for diversity constraint satisfaction", *Proc. VLDB Endow.*, vol. 17, no. 2, pp. 106–118, 2023. DOI: 10.14778/3626292.3626295.

[13] J. Li, A. Silberstein, Y. Moskovitch, **J. Stoyanovich**, and H. V. Jagadish, "ERICA: query refinement for diversity constraint satisfaction", *Proc. VLDB Endow.*, vol. 16, no. 12, pp. 4070–4073, 2023. DOI: 10.14778/3611540.3611623.

[14] **H. Ping** and **J. Stoyanovich**, "Most expected winner: An interpretation of winners over uncertain voter preferences", *Proc. ACM Manag. Data*, vol. 1, no. 1, 22:1–22:25, 2023. DOI: 10.1145/3588702.

[15] M. Sloane, **I. Solano-Kamaiko**, J. Yuan, A. Dasgupta, and **J. Stoyanovich**, "Introducing contextual transparency for automated decision systems", *Nature Machine Intelligence*, vol. 5, pp. 187–195, 2023. DOI: https://doi.org/10.1038/s42256-023-00623-7.

[16] M. Zehlike, **K. Yang**, and **J. Stoyanovich**, "Fairness in ranking, Part I: Score-based ranking", *ACM Computing Surveys*, vol. 55, no. 6, 118:1–118:36, 2023. DOI: 10.1145/3533379.

[17] M. Zehlike, **K. Yang**, and **J. Stoyanovich**, "Fairness in ranking, Part II: Learning-to-rank and recommender systems", *ACM Computing Surveys*, vol. 55, no. 6, 117:1–117:41, 2023. DOI: 10.1145/3533380.

[18] S. Grafberger, P. Groth, **J. Stoyanovich**, and S. Schelter, "Data distribution debugging in machine learning pipelines", *The VLDB Journal — The International Journal on Very Large Data Bases (Special Issue on Data Science for Responsible Data Management*, 2022. DOI: 10.1007/s00778-021-00726-w.

[19] A. McCosker, X. Yao, K. Albury, A. Maddox, J. Farmer, and **J. Stoyanovich**, "Developing data capability with non-profit organisations using participatory methods", *Big Data & Society*, vol. 9, no. 1, p. 20 539 517 221 099 882, 2022. DOI: 10.1177/20539517221099882.

[20] **A. K. Rhea**, **K. Markey**, **L. D'Arinzo**, H. Schellmann, M. Sloane, P. Squires, **F. Arif Khan**, and **J. Stoyanovich**, "An external stability audit framework to test the validity of personality prediction in AI hiring", *Data Mining and Knowledge Discovery, Special Issue on Bias and Fairness in AI"*, 2022. DOI: 10.1007/s10618-022-00861-0.

[21] **J. Stoyanovich**, S. Abiteboul, B. Howe, H. V. Jagadish, and S. Schelter, "Responsible data management", *Commun. ACM*, vol. 65, no. 6, pp. 64–74, 2022. DOI: 10.1145/3488717.

[22] V. Chakraborty, **T. Delemazure**, B. Kimelfeld, P. G. Kolaitis, **K. Relia**, and **J. Stoyanovich**, "Algorithmic techniques for necessary and possible winners", *ACM/IMS Trans. Data Sci.*, vol. 2, no. 3, Jul. 2021, ISSN: 2691-1922. DOI: 10.1145/3458472.

[23] H. V. Jagadish, **J. Stoyanovich**, and B. Howe, "COVID-19 brings data equity challenges to the fore", *Digit. Gov. Res. Pract.*, vol. 2, no. 2, 24:1–24:7, 2021. DOI: 10.1145/3440889.

[24] A. Lewis and **J. Stoyanovich**, "Teaching responsible data science", *International Journal of Artificial Intelligence in Education (IJAIED)*, 2021. DOI: https://doi.org/10.1007/s40593-021-00241-7, **Note:** Special Issue: The FATE of AI in Education: Fairness, Accountability, Transparency, and Ethics.

[25] **H. Ping**, **J. Stoyanovich**, and B. Kimelfeld, "Supporting hard queries over probabilistic preferences", *PVLDB*, vol. 13, no. 7, pp. 1134–1146, 2020. DOI: 10.14778/3384345.3384359.

[26] S. Schelter and **J. Stoyanovich**, "Taming technical bias in machine learning pipelines", *IEEE Data Eng. Bull.*, vol. 43, no. 4, 2020. [Online]. Available: http://sites.computer.org/debull/A20dec/p39.pdf.

[27] **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.

[28] S. Abiteboul and **J. Stoyanovich**, "Transparency, fairness, data protection, neutrality: Data management challenges in the face of new regulation", *ACM Journal of Data and Information Quality*, vol. 11, no. 3, 15:1–15:9, 2019. [Online]. Available: https://doi.org/10.1145/3310231.

[29] 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.

[30] **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.

[31] 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.

[32] 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, **Note:** authors in alphabetical order, impact factor 2.106.

[33] 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, **Note:** authors in alphabetical order.

[34] J. Zheng, **J. Stoyanovich**, E. Manduchi, J. Liu, and C. J. Stoeckert Jr., "AnnotCompute: Annotation-based exploration and meta-analysis of genomics experiments", *Database*, vol. 2011, 2011. DOI: 10.1093/database/bar045, **Note:** impact factor 3.978.

[35] 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, **Note:** authors in alphabetical order.

[36] **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, **Note:** impact factor 4.328.

[37] 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

[38] **A. Bell**, **J. Fonseca**, C. Abrate, F. Bonchi, and **J. Stoyanovich**, "How much effort is enough? fairness in algorithmic recourse through the lens of substantive equality of opportunity", in *Equity and Access in Algorithms, Mechanisms, and Optimization, EAAMO*, ACM, 2025. DOI: 10.1145/3757887.3763014.

[39] **A. Bell** and **J. Stoyanovich**, "Making transparency advocates: An educational approach towards better algorithmic transparency in practice", in *Proceedings of the AAAI Conference on Artificial Intelligence*, vol. 39, 2025, pp. 28 964–28 972. DOI: 10.1609/aaai.v39i28.35165.

[40] **J. Fonseca**, **A. Bell**, and **J. Stoyanovich**, "SafeNudge: Safeguarding large language models in real-time with tunable safety-performance trade-offs", in *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, ACM, Nov. 2025, pp. 19 955–19 969, ISBN: 979-8-89176-332-6. DOI: 10.18653/v1/2025.emnlp-main.1010.

[41] S. Hod, **L. Rosenblatt**, and **J. Stoyanovich**, "Do you really need public data? surrogate public data for differential privacy on tabular data", *The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS), Datasets & Benchmarks Track*, 2025, to appear. [Online]. Available: https://arxiv.org/abs/2504.14368.

[42] H. Hwang, **A. Bell**, **J. Fonseca**, **V. Pliatsika**, **J. Stoyanovich**, and S. E. Whang, "SHAP-based explanations are sensitive to feature representation", in *Conference on Fairness, Accountability, and Transparency, ACM FAccT*, ACM, 2025. DOI: 10.1145/3715275.3732105.

[43] **J. Stoyanovich**, A. Lewis, E. Corbett, **L. Bynum**, **L. Rosenblatt**, and **F. Arif Khan**, "We are AI: Taking control of technology", in *Proceedings of the AAAI Conference on Artificial Intelligence*, 2025, pp. 29 070–29 077. DOI: 10.1609/aaai.v39i28.35178.

[44] **J. Stoyanovich**, **R. K.** de **Paula**, A. Lewis, and **C. Zheng**, "Using case studies to teach responsible ai to industry practitioners", in *Proceedings of the AAAI Conference on Artificial Intelligence*, 2025, pp. 29 062–29 069. DOI: 10.1609/aaai.v39i28.35177.

[45] **A. Bell**, **J. Fonseca**, and **J. Stoyanovich**, "The game of recourse: Simulating algorithmic recourse over time to improve its reliability and fairness", in *Companion of the 2024 International Conference on Management of Data, SIGMOD/PODS 2024, Santiago AA, Chile, June 9-15, 2024*, ACM, 2024, pp. 464–467. DOI: 10.1145/3626246.3654742, **Note:** demonstration.

[46] **A. Bell** and **J. Stoyanovich**, "Making transparency influencers: A case study of an educational approach to improve responsible AI practices in news and media", in *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, CHI EA 2024*, ACM, 2024, 523:1–523:8. DOI: 10.1145/3613905.3637113.

[47] **L. E. J. Bynum**, J. R. Loftus, and **J. Stoyanovich**, "A new paradigm for counterfactual reasoning in fairness and recourse", in *Proceedings of the Thirty-Third International Joint Conference on Artificial Intelligence, IJCAI 2024, Jeju, South Korea*, ijcai.org, 2024, pp. 7092–7100. DOI: 10.24963/ijcai.2024/784.

[48] F. S. Campbell, J. Stoyanovich, and **Y. Moskovitch**, "Rodeo: Making refinements for diverse top-k queries", *Proc. VLDB Endow.*, vol. 17, no. 12, pp. 4341–4344, 2024. DOI: 10.14778/3685800.3685870, **Note:** demonstration.

[49] **D. Herasymuk**, **F. Arif Khan**, and **J. Stoyanovich**, "Responsible model selection with virny and virnyview", in *Companion of the 2024 International Conference on Management of Data, SIGMOD/PODS*, ACM, 2024, pp. 488–491. DOI: 10.1145/3626246.3654738, **Note:** demonstration.

[50] **L. Rosenblatt**, **J. Stoyanovich**, and C. Musco, "A simple and practical method for reducing the disparate impact of differential privacy", in *Thirty-Eighth AAAI Conference on Artificial Intelligence, AAAI*, AAAI Press, 2024, pp. 21 554–21 562. DOI: 10.1609/AAAI.V38I19.30153.

[51] **A. Bell**, **L. Bynum**, **N. Drushchak**, **T. Zakharchenko**, **L. Rosenblatt**, and **J. Stoyanovich**, "The possibility of fairness: Revisiting the impossibility theorem in practice", in *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (FAccT)*, ACM, 2023, pp. 400–422. DOI: 10.1145/3593013.3594007.

[52] **L. E. J. Bynum**, J. R. Loftus, and **J. Stoyanovich**, "Counterfactuals for the future", no. 12, pp. 14 144–14 152, 2023. DOI: 10.1609/aaai.v37i12.26655.

[53] **J. Fonseca**, **A. Bell**, C. Abrate, F. Bonchi, and **J. Stoyanovich**, "Setting the right expectations: Algorithmic recourse over time", in *Proceedings of the 3rd ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization, EAAMO*, ACM, 2023, 29:1–29:11. DOI: 10.1145/3617694.3623251.

[54] S. Guha, **F. Arif Khan**, **J. Stoyanovich**, and S. Schelter, "Automated data cleaning can hurt fairness in machine learning-based decision making", in *Proceedings of the 39th International Conference on Data Engineering, ICDE*, 2023. DOI: 10.1109/TKDE.2024.3365524.

[55] V. Ribeiro, E. H. M. Pena, R. de Freitas Saldanha, R. Akbarinia, P. Valduriez, **F. Arif Khan**, J. Stoyanovich, and F. Porto, "Subset modelling: A domain partitioning strategy for data-efficient machine-learning", in *Proceedings of the 38th Brazilian Symposium on Databases, SBBD*, SBC, 2023, pp. 318–323. [Online]. Available: https://sol.sbc.org.br/index.php/sbbd/article/view/25537.

[56] M. Arenas, P. Bahamondes, **A. Aghasaedeghi**, and **J. Stoyanovich**, "Temporal regular path queries", in *Proceedings of the 38th International Conference on Data Engineering, ICDE*, IEEE Computer Society, 2022. DOI: 10.1109/ICDE53745.2022.00226.

[57] **F. Arif Khan**, E. Manis, and **J. Stoyanovich**, "Towards substantive conceptions of algorithmic fairness: Normative guidance from equal opportunity doctrines", in *Equity and Access in Algorithms, Mechanisms, and Optimization, EAAMO*, ACM, 2022, 18:1–18:10. DOI: 10.1145/3551624.3555303. [Online]. Available: https://doi.org/10.1145/3551624.3555303.

[58] **A. Bell**, **I. Solano-Kamaiko**, O. Nov, and **J. Stoyanovich**, "It's just not that simple: An empirical study of the accuracy-explainability trade-off in machine learning for public policy", in *Proceedings of the 5th Annual ACM Conference on Fairness, Accountability, and Transparency, FAccT*, ACM, 2022, pp. 248–266. DOI: 10.1145/3531146.3533090.

[59] **A. K. Rhea**, **K. Markey**, **L. D'Arinzo**, H. Schellmann, M. Sloane, P. Squires, and **J. Stoyanovich**, "Resume format, linkedin urls and other unexpected influences on ai personality prediction in hiring: Results of an audit", in *Proceedings of the Fifth AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES)*, 2022. DOI: 10.1145/3514094.3534189.

[60] **L. Bynum**, J. R. Loftus, and **J. Stoyanovich**, "Disaggregated interventions to reduce inequality", in *EAAMO 2021: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization, Virtual Event, USA, October 5 - 9, 2021*, ACM, 2021, 2:1–2:13. DOI: 10.1145/3465416.3483286.

[61] **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. [Online]. Available: http://cidrdb.org/cidr2021/papers/cidr2021%5C_paper27.pdf.

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[140] 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. [Online]. Available: `https://doi.org/10.4230/DagMan.7.1.1`, **Note:** workshop report contributor, by invitation.

[141] **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. [Online]. Available: `https://doi.org/10.1145/3183713.3205185`, **Note:** co-organizer and presenter at this plenary panel.

[142] **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. [Online]. Available: `http://www.vldb.org/pvldb/vol11/p2165-stoyanovich.pdf`, **Note:** plenary panel co-organizer and presenter.

[143] 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://drops.dagstuhl.de/opus/volltexte/2016/6764/pdf/dagrep_v006_i007_p042_s16291.pdf`, **Note:** workshop co-chair, authors in alphabetical order.

[144] **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. [Online]. Available: `https://doi.org/10.5441/002/edbt.2016.103`, **Note:** peer-reviewed tutorial.

Conference and Workshop Proceedings

[145] J. Stoyanovich, J. Teubner, N. Mamoulis, E. Pitoura, J. Mühlig, K. Hose, S. S. Bhowmick, and M. Lissandrini, Eds., *Proceedings 26th International Conference on Extending Database Technology, EDBT 2023, Ioannina, Greece, March 28-31, 2023*, OpenProceedings.org, 2023, ISBN: 978-3-89318-088-2, **Note:** program committee co-chair.

[146] J. Stoyanovich, J. Teubner, P. Guagliardo, M. Nikolic, A. Pieris, J. Mühlig, F. Özcan, S. Schelter, H. V. Jagadish, and M. Zhang, Eds., *Proceedings of the 25th International Conference on Extending Database Technology, EDBT 2022, Edinburgh, UK, March 29 - April 1, 2022*, OpenProceedings.org, 2022, ISBN: 978-3-89318-086-8, **Note:** program committee co-chair.

[147] 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.

[148] 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

[149] **J. Stoyanovich**, "Testimony on Regulation of High-Risk Use of Artificial Intelligence in the Private Sector Hearing of the New York State Senate Standing Committee on Internet and Technology", Jan. 2026. [Online]. Available: https://www.nysenate.gov/sites/default/files/admin/structure/media/manage/filefile/a/2026-01/julia-stoyanovich-center-for-responsible-ai-testimony.pdf.

[150] **J. Stoyanovich**, ""DeepSeek: A Deep Dive," Testimony before the Committee on Science, Space and Technology of the U.S. House of Representatives, Research and Technology Subcommittee", Apr. 2025. [Online]. Available: https://science.house.gov/2025/4/deepseek-a-deep-dive.

[151] **J. Stoyanovich**, "Opinion: Google has been force-feeding us ads. now one big antitrust case could change the internet forever", *Los Angeles Times*, Sep. 2023. [Online]. Available: https://www.latimes.com/opinion/story/2023-09-24/google-antitrust-monopoly-trial-justice-department-digital-ads-facebook.

[152] **J. Stoyanovich**, "Testimony before the New York City Department of Consumer and Worker Protection regarding Local Law 144 of 2021 in Relation to Automated Employment Decision Tools (AEDTs)", Jan. 2023. [Online]. Available: https://rules.cityofnewyork.us/wp-content/uploads/2022/12/Stoyanovich_144_Jan23_2023.pdf.

[153] **J. Stoyanovich**, "Three urgent AI red flags for congress to address in 2024", *The Hill*, Dec. 2023. [Online]. Available: https://thehill.com/opinion/technology/4373850-three-urgent-ai-red-flags-for-congress-to-address-in-2024/.

[154] **J. Stoyanovich**, "Testimony before the New York City Department of Consumer and Worker Protection regarding Local Law 144 of 2021 in Relation to Automated Employment Decision Tools (AEDTs)", Oct. 2022. [Online]. Available: https://rules.cityofnewyork.us/wp-content/uploads/2022/09/Stoyanovich_LL144_October24_2022.pdf.

[155] **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/.

[156] A. R. Givens, H. Schellmann, and **J. Stoyanovich**, "We need laws to take on racism and sexism in hiring technology", *New York Times*, Mar. 2021. [Online]. Available: https://www.nytimes.com/2021/03/17/opinion/ai-employment-bias-nyc.html.

[157] **J. Stoyanovich**, "Hiring and AI: Let job candidates know why they were rejected", *The Wall Street Journal*, Sep. 2021. [Online]. Available: https://www.wsj.com/articles/hiring-job-candidates-ai-11632244313.

[158] **J. Stoyanovich** and **F. Arif Khan**, "All about that bias", *We are AI Comic Series*, vol. 4, 2021. [Online]. Available: https://dataresponsibly.github.io/we-are-ai/comics/.

[159] **J. Stoyanovich** and **F. Arif Khan**, "Learning from data", *We are AI Comic Series*, vol. 2, 2021. [Online]. Available: https://dataresponsibly.github.io/we-are-ai/comics/.

[160] **J. Stoyanovich** and **F. Arif Khan**, "We are AI", *We are AI Comic Series*, vol. 5, 2021. [Online]. Available: https://dataresponsibly.github.io/we-are-ai/comics/.

[161] **J. Stoyanovich** and **F. Arif Khan**, "What is AI?", *We are AI Comic Series*, vol. 1, 2021. [Online]. Available: https://dataresponsibly.github.io/we-are-ai/comics/.

[162] **J. Stoyanovich**, M. Sloane, and **F. Arif Khan**, "Who lives, who dies, who decides?", *We are AI Comic Series*, vol. 3, 2021. [Online]. Available: https://dataresponsibly.github.io/we-are-ai/comics/.

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

[164] **J. Stoyanovich**, "Testimony before new york city council committee on technology regarding int 1894-2020, sale of automated employment decision tools", *Data, Responsibly*, Nov. 2020. [Online]. Available: https://dataresponsibly.github.io/documents/Stoyanovich_Int1894Testimony.pdf.

[165] **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.

[166] **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.

[167] **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.

[168] **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.

[169] **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.

[170] **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.

[171] 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.

[172] S. Abiteboul and **J. Stoyanovich**, "Plaidoyer pour une analyse responsible 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.

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

Funding

[1] Lead PI, **NSF** Grant No.2520637: "Transforming Artificial Intelligence and Robotics Research through Engineering Education". Award Period: 09/01/2025-08/31/2028. Award Amount $399,999.

[2] PI, **NSF** Grant No.2432040: "Conference: Community-Informed Policies and Best-Practices for the National Artificial Intelligence Research Resource Pilot". Award Period: 06/01/2024-11/30/2024. Award Amount $99,844.

[3] PI, **Omidyar Network**: "Conference: Community-Informed Policies and Best-Practices for the National Artificial Intelligence Research Resource Pilot". Award Period: 06/01/2024-11/30/2024. Award Amount $99,964.

[4] Lead PI, **NSF** Grant No.2326193: "Collaborative Research: FW-HTF-RL: Trapeze: Responsible AI-assisted Talent Acquisition for HR Specialists", with A. Dasgupta (NJIT), F. Oswald (Rice University), A.M. Ryan (MSU). Award Period: 08/20/2023-08/31/2027. Award Amount $1,676,848 total / $721,815 Stoyanovich.

[5] Lead PI, **NSF** Grant No.2312930: "Collaborative Research: III: MEDIUM: Responsible Design and Validation of Algorithmic Rankers", with H.V. Jagadish (University of Michigan) and A. Dasgupta (NJIT). Award Period: 09/01/2023-08/31/2027. Award Amount $1,200,000 total / $400,000 Stoyanovich.

[6] Lead PI, **CASMI** (Center for Advancing Safety of Machine Intelligence): "Incorporating Stability Objectives Into the Design of Data-Intensive Pipelines". Award Period: 06/01/2023-05/31/2024. Award Amount $150,000.

[7] Lead PI, **Pivotal Ventures**: "AI and Gender: Envisioning and Building a More Equitable Future". Award Period: 09/01/2022-08/31/2022. Award Amount $500,000.

[8] Lead PI, **Meta**: "Development and Delivery of Responsible AI (RAI) Curriculum at Facebook". Award Period: 10/01/2021-12/31/2022. Award Amount $1,000,000.

[9] Lead PI, **CASMI** (Center for Advancing Safety of Machine Intelligence): "Incorporating Stability Objectives Into the Design of Data-Intensive Pipelines". Award Period: 03/01/2022-02/28/2023. Award Amount $100,000.

[10] Lead PI, **JP Morgan Chase** Faculty Research Award: "Nutritional Labels for Financial Products and Credit Decisions: Strengthening Accountability Through Public Disclosure". Award Period: 07/01/2021-06/30/2022. Award Amount $100,000.

[11] Lead PI, **NSF Northeast Big Data Innovation Hub** Seed Award: "All Aboard: Developing Protocols for Accessible AI Education". Award Period: 12/22/2021-05/31/2022. Award Amount $25,000.

[12] Co-PI, **NSF** Grant No.1934464: "HDR: DIRSE-FW: Collaborative Research: Framework for Integrative Data Equity Systems", with H.V. Jagadish, M. Levenstein, R. Hampshire (University of Michigan), B. Howe (University of Washington).
Award Period: 10/01/2019-09/30/2021. Award Amount $2,000,000 total / $550,000 Co-PI Stoyanovich.

[13] Co-PI, **NSF** Grant No. 1922658: "NRT-HDR: FUTURE Foundations, Translation, and Responsibility for Data Science Impact", with J. Kempe (Lead PI).
Award Period: 09/01/2019-08/31/24. Award Amount $3,000,000 total.
Stoyanovich spearheaded proposal development and writing.

[14] 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.

[15] PI, **NSF** Grant No. 1750179 / 1916505: "**CAREER**: Querying evolving graphs".
Award Period: 02/01/2018-01/31/2023. Award Amount $549,747 total.

[16] Lead PI, **NSF** Grant No.1741047 / 1926250: "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.

[17] Co-PI, **NSF** Grant No. 1813888 / 1916647: 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.

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

[19] 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.

[20] 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.

[21] 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.

[22] 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.

[23] 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

CS-GY 9223 K **Introduction to Responsible AI** (Computer Science & Engineering, Tandon) *Fall 2025*

DS-GA 1017 **Responsible Data Science** (Center for Data Science)
Spring 2026, *Spring 2024*, *Spring 2023*, *Spring 2022*, *Spring 2021*

CS-GY 6083 **Principles of Database Systems** (Computer Science & Engineering, Tandon) *Fall 2022*, *Fall 2021*, *Fall 2020*

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

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

Public Education, Summer & Winter Schools

Responsible AI Research Program for Ukrainian Scholars, 06/2022-, fully-remote program for Ukrainian students, hosted at NYU R/AI, in collaboration with Ukrainian Catholic University https://r-ai.co/ukraine

We are AI: Taking Control of Technology, 03/2022-04/2022, Public education course at the Queens Public Library, New York City, NY https://dataresponsibly.github.io/we-are-ai/

1st Greek ACM-W Chapter Winter School on Fairness in AI, online, 02/2022
Invited course: **Comparing Apples and Oranges: Fairness and Diversity in Ranking**, https://women.acm.org/1st-greek-acm-w-chapter-winter-school-\on-fairness-in-ai/

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

- Joao Ribeiro da Fonseca, New York University, postdoctoral researcher, 10/2024-09/2025
- Raoni de Paula Lourenco, New York University, postdoctoral researcher, 01/2021-12/2021, current position: Senior Backend Developer at Accern
- Eric Corbett, New York University, Provostial postdoctoral fellow, 09/2020-03/2022, current position: research scientist at Google
- Lovro Ilijasic, Drexel University, postdoctoral researcher, 11/2015-11/2016, current position: Machine Learning Engineer, Toptal

Doctoral Students

- Vera Z. Moffitt, "Querying and Analysis of Evolving Graphs", Drexel University, graduated May 2017, current position: research manager, Lockheed Martin

- Ke Yang, "Fairness, Diversity, and Interpretability in Ranking", New York University, Tandon CSE, graduated August 2021, recipient of the **Pearl Brownstein Doctoral Research Award**, current position: Assistant Professor of Computer Science, University of Texas San Antonio
- Haoyue Ping, "Probabilistic Preference Databases and their Applications in Voting with Uncertainty", New York University, Tandon CSE, graduated May 2022, current position: Lead Data Scientist at ADP
- Kunal Relia, "The Many Computational Facets of Reducing Inequality", New York University, Tandon CSE, graduated May 2022
- Amir Pouya Aghasadeghi, "Querying Temporal Property Graphs", New York University, Tandon CSE, graduated August 2022, current position: Software Development Engineer, Amazon Web Services
- Andew Bell, New York University, Tandon CSE, Fall 2020-Spring 2025, recipient of the **NSF Graduate Research Fellowship**, current position: postdoctoral researcher, Cornell Tech
- Lucius Bynum, New York University, Center for Data Science, Fall 2020-Spring 2025, recipient of the **Microsoft Graduate Research Fellowship**, current position: Assistant Professor/Faculty Fellow at the NYU Center for Data Science
- Falaah Arif Khan, New York University, Center for Data Science, Fall 2021-Fall 2023, recipient of the **Apple PhD Fellowship**
- Venetia Pliatsika, New York University, Tandon CSE, Fall 2022-Fall 2026, recipient of the **Tandon Future Leaders Fellowship**
- Lucas Rosenblatt, New York University, Tandon CSE, Fall 2021-, recipient of the **NSF Graduate Research Fellowship** and **NYU RAI Responsible AI Doctoral Fellowship**
- Anna Richter, Technical University of Berlin, co-advised with Prof. Sebastian Schelter, Fall 2025-
- Seungeun Lee, New York University, Tandon CSE, Fall 2025-
- Reetahan Mukhopadhyay, New York University, Tandon CSE, Fall 2025-

Doctoral Committees

- New York University: Miao Zhang (Tandon CSE, advised by Prof. Rumi Chunara), Chau Tran (Tandon CSE, advised by Prof. Rachel Greenstadt), Jeffrey Berg (Psychology, advised by Prof. David Amodio), Angela Lai (CDS, advised by Prof. Richard Bonneau and Prof. Joshua Tucker), Michael Lui (NYU Abu Dhabi, advised by Prof. Talal Rahvan), Aecio Santos (Tandon CSE, advised by Prof. Juliana Freire), Haoxiang Zhang (Tandon CSE, advised by Prof. Juliana Freire), Bashar Alhafni (NYU Abu Dhabi, advised by Prof. Nizar Habash), Antonio Mallia (Tandon CSE, advised by Prof. Torsten Suel), Zhouhan Chen (CDS, 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)

- Other institutions: Hyunseung Hwang (KAIST, South Korea; advised by Prof. Steven Euijong Whang), Virginie Do (Universite Paris Dauphine, France; advised by Profs. Jérôme Lang and Jamal Atif, and by Nicolas Usunier), Maria Massri (Universite de Rennes 1, France; advised by Prof. Zoltan Miklos)

Visiting Students

- Joao Ribeiro da Fonseca, PhD student, Spring 2023, visiting from the NOVA Information Management School in Lisbon, Portugal
- 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: Aradhita Bandari, Pedro Galarza, Alene Rhea, Lauren D'Arinzo, Kelsey Markey, Biao Huang, Yuxuan He, Jatin Khilnani
- New York University, Tandon Computer Science & Engineering: Wonkwon Lee, Ian Solano-Kamaiko, Samasth Norway Ananda, Vishnu Thakral, Ankush Jain
- Ukrainian Catholic University: Anastasia Holovenko
- Drexel University: Matthew Bucci, Akhil Kapoor, Sanjana Raj, Matthew Gilbride, Jugal Lodya, Priyasmita Bagchi
- University of Pennsylvania: Brian Lyons

Undergraduate Students

- Ukrainian Catholic University: Denys Herasymuk, Nazarii Drushchak, Olha Nahurna, Matvii Prytula, Kateryna Akhynko, Ivan Shevchenko, Nazar Protsiv, Oleksandra Konopatska, Olha Liuba, Alina Muliak, Taras Rumezhak, Andrii Stadnik, Roman Mutel, Yuliia Maksymiuk, Viktoriia Makovska, Anastasiia Mozgova, Dmytro Khar, Vladyslav Sydorak, Ilona Marchenko, Yaroslava Tokaryeva, Mariia Tokhtamysh, Ihor Michurin
- 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

Keynotes and Distinguished Talks

- NSF CISE Distinguished Lecture, 05/01/2025
- 21st Conference on Database Systems for Business, Technology and Web (BTW 2025), keynote presentation, 03/2025
- 31st Symposium on Advanced Database Systems (SEBD 2023), keynote presentation, 07/2023
- Maker Faire Rome, opening conference, invited talk 10/2022
- 37th Brazilian Symposium on Databases (SBBD 2022), keynote presentation, 09/2022
- Argonne National Lab AI Distinguished Lecture Series, distinguished talk, 07/2022
- 35th Canadian Conference on Artificial Intelligence (Canadian AI 2022), keynote presentation, 06/2022
- 1st International Workshop on Data Systems Education (DataEd 2022, with ACM SIGMOD), keynote presentation, 06/2022
- 6th Workshop on Data Management for End-to-End Machine Learning (DEEM 2022, with ACM SIGMOD), keynote presentation, 06/2022
- Symposium on Intelligent Data Analysis (IDA 2022), keynote presentation, 04/2022
- Pontificia Universidad Católica De Chile, Annual Conference Series in Applied Ethics, keynote presentation, 10/2021
- 20th International Semantic Web Conference (ISWC 2021), keynote presentation, 10/2021
- Data Intelligence Institute of Paris (diiP), distinguished lecture, 10/2021
- 27th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2021), Applied Data Science (ADS) invited speaker, 08/2021
- 25th 25th Annual Conference of the Consortium for Computing Sciences in Colleges Northeast Region (CCSCNE 2021), keynote presentation, 4/16/2021
- 24st International Conference on Extending Database Technology (EDBT 2021) / 24th International Conference on Database Theory (ICDT 2021), keynote presentation, 03/2021
- 46th International Conference on Very Large Data Bases (VLDB 2020), 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 2020), 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 2019), co-located with CAiSE 2019, keynote presentation, 6/4/2019

- International Workshop on Software Fairness (FairWare 2018), co-located with ICSE 2018, keynote, 05/29/2018
- University of Luxembourg, distinguished lecture, 12/07/2017

Selected Invited Talks

- NIH-ODSS Search Workshop: Ethics in search, invited presentation, 01/19/2022
- Brookings Institution, Webinar: What exactly is 'Responsible AI', panel presentation, 05/10/2021
- 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

- Silver School of Social Work,"AI for Health & Social Equity", invited presentation on "Demystifying Responsible AI", 02/18/2025
- Sir Harold Acton Society invited presentation on "Making Responsible AI Synonymous with AI', 02/04/2025
- 76th NYU Annual Conference on Labor & Employment Law: Challenges & Opportunities, invited presentation on "AI Developments in the US Workplace: US and EU Structures", 05/23/2024
- 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

Additional Professional Activities

Policy Engagements

- Member of the **SmartCityPHL Project Taskforce**, 06/2021-09/2022, `https://www.phila.gov/programs/smartcityphl`
- Member of the Advisory Group for AI and Administrative Decision-Making Project, **Law Commission of Ontario**, 12/2019-12/2020
- 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 panelist, **Beyond the Hype: Putting AI to Work for Sustainable Development**, panel co-orgainzed by the Embassy of Sweden and the National Academy of Sciences, Engineering, and Medicine, 05/20/2024
- 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

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, ACM FAccT 2026

- Diversity & Inclusion chair, 27th International Conference on Extending Database Technology, EDBT 2024, https://dastlab.github.io/edbticdt2024/
- Program committee co-chair, 25th International Conference on Extending Database Technology, EDBT 2022, https://conferences.inf.ed.ac.uk/edbticdt2022
- Tutorials co-chair, ACM SIGMOD 2021, https://2021.sigmod.org
- 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, 2016-2024
- Editorial board member: Data & Policy Journal, Cambridge, 2019-2024
- Big Data 2019, Vice Chair in Big Data Security, Privacy and Trust
- ACM FAT* 2019, Track Co-Chair, Systems
- Ethical Reviewer: NeurIPS 2021, 2022
- Review board member: PVLDB (2021-22 (meta-reviewer), 2020-21 (meta-reviewer), 2016-17, 2014-15, 2012-13)
- Senior program committee member: ACM FAccT 2025, ACM SIGMOD 2023 (meta-reviewer), IEEE ICDE 2021 (meta-reviewer), 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 (2024, 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.