

# Shiri Dori-Hacohen

## Curriculum Vitae

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### Academic Background

- 2021 - date Assistant Professor, Computer Science & Engineering Department, University of Connecticut, Storrs, CT.
- 2018 Visiting Scholar, The Department of Information and Knowledge Management, University of Haifa, Israel.
- 2011 – 2017 Ph.D., College of Information and Computer Sciences, University of Massachusetts Amherst. M.S. in Computer Science awarded, 2015.
- 2009 – 2011 Ph.D. program, Department of Computer Science and Engineering, University of California, San Diego.
- 2004 – 2006 M.Sc., Department of Computer Science, University of Haifa, Israel. Dean's List.
- 2001 – 2004 B.Sc., dual-major, Computer Science and Bachelors' Excellence Program, University of Haifa, Israel. Cum Laude.

### Grants and Awards

- 2022 **S. Dori-Hacohen (PI)**, “Black-on-Asian-Crime”: an exploration of wedge issues in minority communities on social media. Scholarship Facilitation Fund, University of Connecticut. 1/1/2022 - 6/30/2022. \$2,000.
- 2021 - 2023 S.A. Hale (PI), FACT CHAMP - Fact-checker, Academic, and Community Collaboration Tools: Combating Hate, Abuse, and Misinformation with Minority-led Partnerships, Meedan; UConn subaward, **S. Dori-Hacohen (Co-PI)**. 9/1/2021 - 8/31/2022. \$749,754.00 (UConn portion: \$110,163.00).
- 2021 - 2023 R.E. Montenegro (PI), Bias Reduction in Curricular Content (BRICC), Seattle Children's Hospital; AuCoDe subaward, **S. Dori-Hacohen, K. Sung (Co-PIs)**. 9/1/2021 - 9/1/2023. \$150,000 (AuCoDe portion: \$120,000).

- 2020 – 2021 **S. Dori-Hacohen (PI)**, SBIR Phase II: A Controversy Detection Signal for Finance, Automated Controversy Detection (AuCoDe), National Science Foundation (NSF) Small Business Innovation Research (SBIR) Phase II, 5/1/2020 to 4/30/2022 (transferred PI'ship upon joining UConn). \$742,421.
- 2019 **S. Dori-Hacohen (PI)**, MIT Fusion Innovation Corps (MIT I-Corps) Microgrant, Massachusetts Institute of Technology & National Science Foundation (NSF), 9/6/2019 to 10/16/2019. \$1,500.
- 2018 – 2019 **S. Dori-Hacohen (PI)**, SBIR Phase I: A Controversy Detection Signal for Finance, Automated Controversy Detection (AuCoDe), National Science Foundation (NSF) Small Business Innovation Research (SBIR) Phase I, 6/15/2018 to 3/31/2019. \$250,000.
- 2017 – 2018 J. Allan (PI), **S. Dori-Hacohen (Entrepreneurial Lead)**, Probabilistically Detecting Controversy, National Science Foundation Innovation Corps (NSF I-Corps), 3/01/2017 to 2/28/18. \$50,000.
- 2017 University of Massachusetts MTTC Acorn Award. 4/1-6/30/17. \$10,000.
- 2016 1st place, 2016 Innovation Challenge, Berthiaume Center for Entrepreneurship, University of Massachusetts Amherst. \$35,000.
- 2014 – 2015 Co-author for: Seeking Controversial Topics and Stances, Google Faculty Research Award, J. Allan (PI). 8/27/2014 to 8/26/2015. \$54,440.

## Publications

### Peer-Reviewed Journal and Conference Publications

- 2017 Jang, M., Dori-Hacohen, S. and Allan, J., Modeling Controversy Within Populations, *Proc. of the International Conference on the Theory of Information Retrieval (ICTIR)*, Amsterdam, The Netherlands.
- 2015 Dori-Hacohen, S., and Allan, J., Automated Controversy Detection on the Web. *Proc. of the 37th European Conference on Information Retrieval (ECIR 2015)*, Vienna, Austria.
- 2009 Biberstein, M., Dori-Hacohen, S., Harel, Y., Heilper, A., Mendelson, B., Shvadron, U., Triester, E., Turek, J., and Chang, M.S., Cell B.E. Performance Optimization: Tracing Tools Implementation and Usage. *IBM Journal of Research and Development*, 53(5), 1-14.
- 2006 Dori, S. and Landau, G.M., Construction of Aho Corasick Automaton in Linear Time for Integer Alphabets. *Information Processing Letters*, 98(2), 66-72.
- 2005 Dori, S. and Landau, G.M., Construction of Aho Corasick Automaton in Linear Time for Integer Alphabets. *Proc. 16th Combinatorial Pattern Matching Conference (CPM)*, Lecture Notes in Computer Science, 3537, Springer-Verlag, 168-177.

## Peer-Reviewed Conference Short Papers

- 2016 Jang, M., Foley, J., Dori-Hacohen, S. & Allan, J. Probabilistic Approaches to Controversy Detection, *Proc. of the ACM International Conference on Information and Knowledge Management (CIKM)*.
- 2016 Dori-Hacohen, S., Jensen, D., and Allan, J., Controversy Detection in Wikipedia Using Collective Classification, *Proc. of the 39th Annual ACM SIGIR Conference (SIGIR)*.
- 2013 Dori-Hacohen, S., Allan, J., Detecting Controversy on the Web. *Proc. of the ACM International Conference on Information and Knowledge Management (CIKM)*.

## Peer-Reviewed Workshop Papers & Posters

- 2022 Bucknall, B., Dori-Hacohen, S. Near-Term AI as an Existential Risk Factor. *The AAAI's Workshop on Artificial Intelligence Safety (SafeAI 2022)*.
- 2021 Dori-Hacohen, S., Montenegro, R., Murai, F., Hale, S. A., Sung, K., Blain, M., & Edwards-Johnson, J. Fairness via AI: Bias Reduction in Medical Information. *The 4th FAccTRec Workshop on Responsible Recommendation at RecSys 2021*.
- 2021 Dori-Hacohen, S., Sung, K., Chou, J., and Lustig-Gonzalez, J. Restoring Healthy Online Discourse by Detecting and Reducing Controversy, Misinformation, and Toxicity Online. *SIGIR Symposium on IR in Practice (SIRIP), formally known as the SIGIR Industry Track, 2021*. In Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '21). Association for Computing Machinery, New York, NY, USA, 2627–2628.
- 2019 Dori-Hacohen, S., Brondwine, E., and Gollehon, J. Squabble: an efficient, scalable controversy classifier. *NewsIR 2019: 3rd International Workshop on Recent Trends in News Information Retrieval, SIGIR 2019 Workshop*.
- 2015 Dori-Hacohen, S., Yom-Tov, E., and Allan, J. Navigating Controversy as a Complex Search Task. *Supporting Complex Search Tasks, ECIR 2015 Workshop*.

## Patents

- 2020 Dori-Hacohen, S., Sankary, N., et al. Proficiency Assessment and Instructional Feedback Using Explainable Artificial Intelligence. US provisional Application 63/117,386.
- 2019 Jang, M., Dori-Hacohen, S., and Allan, J., University of Massachusetts, 2019. Modeling Controversy Within Populations. U.S. Patent Application 16/367,734.
- 2019 Dori-Hacohen, S., Allan, J., Foley, J. and Jang, M.H., University of Massachusetts, 2019. Methods for automated controversy detection of content. U.S. Patent Application 16/339,234.

## Other Publications & Media Appearances

- 2021 AuCoDe & UConn Department of Computer Science and Engineering. “Dori-Hacohen joining UConn School of Engineering, transitions to CSO and Chair of Board of Startup.” Joint Press Release. Available at: <https://news.engr.uconn.edu/dori-hacohen-joining-uconn-school-of-engineering/transitions-to-cso-and-chair-of-board-of-startup.php>
- 2021 AuCoDe. “Parler’s Swan Song: preliminary insights into 672k comments from 291k users in Parler’s final six days.” Blog Post. Available at: <https://www.aucode.io/blog>
- 2020 University of Massachusetts Amherst News & Media Relations. AI Startup AuCoDe Receives \$1 Million Grant to Tackle Online Disinformation. Available at: <https://www.umass.edu/newsoffice/article/ai-startup-aucode-receives-1-million-grant>
- 2020 Anber, H., Avula, S., Biega, A., Boteanu, A., Chatterjee, S., Dalton, J., Dietz, L., Dori-Hacohen, S., Foley, J., Field, H., Gamari, B., Jones, R., Kanani, P., Kashyapi, S., Machmouchi, W., Mitra, B., Mitsui, M., Nole, S., Tachard Passos, A., Pickens, J., Ramsdell, J., Roegiest, A., Smith, D., and Sordoni, A. Report on the First HIPstIR Workshop on the Future of Information Retrieval. In *ACM SIGIR Forum* (2020).
- 2019 Albakour, D., Martinez, M., Tippmann, S., Aker, A., Stray, J., Dori-Hacohen, S., and Barrón-Cedeño, A. Third International Workshop on Recent Trends in News Information Retrieval (NewsIR’19). In *Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval*, pp. 1429-1431.
- 2018 Rosen, A. “Online hate is spreading, and Internet platforms can’t stop it.” Boston Globe. Interviewed as CEO of AuCoDe in response to Tree of Life shooting. Available at: <https://www.bostonglobe.com/business/2018/11/01/technology-has-fix-for-hate-spreading-online/Y21Ie5oh3aFa0gRWIw1JSN/story.html>
- 2017 University of Massachusetts Amherst Foundation. “Understanding Controversy.” Aspire Report, Fall 2017. Interviewed as CEO of AuCoDe. Available at: [https://www.umass.edu/giving/sites/default/files/aspire\\_fall2017\\_upload\\_lowres2.pdf](https://www.umass.edu/giving/sites/default/files/aspire_fall2017_upload_lowres2.pdf)
- 2017 Dietz, L., Brondwine, E., Dori-Hacohen, S., & Voorhees, E. Women in IR. In *ACM SIGIR Forum*, 50(2), pp. 15-17. ACM.
- 2017 Dori-Hacohen, S. (2017). Controversy Analysis and Detection. Doctoral Thesis.
- 2015 Dori-Hacohen, S. Controversy Detection and Stance Analysis. Doctoral Consortium, *Proc. of the 38th Annual ACM SIGIR Conference (SIGIR 2015)*.

## Other Professional Experience

- 2021 - date Founder, Chief Scientific Officer, and Board Chair, Automated Controversy Detection (AuCoDe).
- 2019 – date Principal, SDH Consulting.

- 2016 – 2021 CEO and Founder, Automated Controversy Detection (AuCoDe).
- 2011 – 2017 Research Assistant, Center for Intelligent Information Retrieval, College of Information and Computer Sciences, University of Massachusetts, Amherst.
- 2015 Intern, Facebook, Software Engineering. News Search Team. Seattle, WA.
- 2013 Intern, Google, Software Engineering. Local Search Team. New York, NY.
- 2012 – 2013 Student Ambassador to University of Massachusetts Amherst, Google.
- 2010 – 2011 Intern, Software Engineering and Community Moderator, The Motley Fool ([www.fool.com](http://www.fool.com)). Alexandria, VA.
- 2009 – 2011 Research Assistant, Department of Computer Science and Engineering, University of California, San Diego, CA.
- 2008 – 2009 Research Staff Member, IBM Haifa Research Lab, Haifa, Israel.
- 2006 – 2007 Software Engineer, Answers.com. Jerusalem, Israel.
- 2004 – 2006 Research Assistant, Department of Computer Science, University of Haifa, Haifa, Israel. Affiliated with the Caesarea Rothschild Institute for Interdisciplinary Applications of Computer Science.
- 2003 – 2004 Researcher and Developer, IBM Haifa Research Lab, Haifa, Israel. Software Asset Management Group.

## **Fellowships, Scholarships and Honors**

- 2020 Semi-Finalist, MassChallenge FinTech.
- 2019 Female Founder Fellow, The Capital Network.
- 2017 Top 5 Startup, Minute 2 Pitch It Event, MassChallenge Israel.
- 2017 Finalist, MassChallenge Israel.
- 2017 Graduate School Dissertation Writing Fellowship. 1/23-5/11/17. \$11,750.
- 2014 ACM Student Research Competition, Grace Hopper Celebration of Women in Computing.
- 2014 Bridgewater Associates Scholarship to attend the Grace Hopper Celebration of Women in Computing.
- 2011 Google Lime Scholarship for Students with Disabilities. \$10,000.
- 2011 Honorable Mention, Jacobs School of Engineering 30th Annual Research Expo, University of California, San Diego.
- 2009 – 2011 Jacobs School Alumni Fellowship, Jacobs School of Engineering, University of California, San Diego. \$69,000.
- 2006 H. Eckstein Excellence Scholarship for Graduate Students, Wolf Foundation - to promote science and art for the benefit of mankind, Israel, 2006.
- 2005 Top Student Recognition Event, IBM EMEA, Stuttgart, Germany, 2005.
- 2005 Exceptional Achievement Fellowship for Masters Students, Graduate School, University of Haifa, Israel.
- 2004 Excellence Fellowship for Masters Students, Department of Computer Science, University of Haifa, Israel.
- 2004 Excellence Encouragement Scholarship for Masters studies, Graduate School, University of Haifa, Israel, 2004.

## Grants Under Review

- S. Dori-Hacohen (PI).** BRIDGE: BRidging Interacting with, Defining and Generating Explanations. Open Philanthropy program on Potential Risks from Advanced Artificial Intelligence. \$1,000,000. Under review.
- S. Dori-Hacohen (PI).** FAI: BRIMI - Bias Reduction In Medical Information. NSF Program on Fairness in Artificial Intelligence in Collaboration with Amazon. \$628,789. Under review.
- Skums, Pavel (PI). PIPP Phase I: Cyber-molecular infrastructure for real-time surveillance of viral pathogen emergence, evolution and spread via high-throughput sequencing and responsible AI. UConn subaward, **S. Dori-Hacohen (Co-PI)**. NSF Predictive Intelligence for Pandemic Prevention, Phase I. \$997,437 (UConn portion: \$269,385). Under review.

## Technical Talks

### Invited Technical Talks

- 02/2022 Quantifying Misalignment Between Agents. The AAAI's Workshop on Artificial Intelligence Safety (SafeAI 2022). Virtual.
- 03/2021 Controversy Analysis and Detection: Modeling Controversy Within Populations. Department of Software and Information Systems. University of North Carolina Charlotte.
- 02/2021 Controversy Analysis and Detection: Modeling Controversy Within Populations. Department of Computer Science, Clark University.
- 10/2019 Controversy Analysis and Detection: Modeling Controversy Within Populations. Spotify Research, Boston, MA.
- 05/2018 Controversy Analysis and Detection: Modeling Controversy Within Populations. University of Glasgow, Glasgow, UK.
- 12/2017 Controversy Detection in Wikipedia Using Collective Classification. Signal Media, London, UK.
- 01/2017 Artificial Intelligence Meets Content Controversy Detection. AI IL Meetup, Tel Aviv, Israel.
- 01/2017 Popping the Filter Bubble: Analyzing Controversy on the Internet. The Public Knowledge Workshop, Google Campus, Tel Aviv, Israel.
- 08/2016 Controversy Detection in Wikipedia Using Collective Classification. AOL Relevance, Haifa, Israel.
- 08/2016 Controversy Detection in Wikipedia Using Collective Classification. Yahoo Research, Haifa, Israel.
- 07/2016 Controversy Detection in Wikipedia Using Collective Classification. IBM Research, Tel Aviv, Israel.
- 09/2015 Detecting Sentiment in Real Time News. Facebook, Seattle, Washington.
- 01/2015 Automated Controversy Detection on the Web. University of Haifa, Haifa, Israel.
- 07/2014 Detecting Controversy on the Web, Yahoo Research, Haifa, Israel.
- 07/2014 Detecting Controversy on the Web, IBM Research, Tel Aviv, Israel.

- 11/2013 Detecting Controversy on the Web, Google.org, Washington, D.C.  
11/2013 “Consumer Health Trends: Shaping Behavior One Step at a Time”, Invited Panelist. UXPA Connecticut’s World Usability Day, Connecticut.

### **Contributed Technical Talks**

- 06/2020 Passing the Turing Test: When, Why and How. Level 3 AI Assistant Conference, Virtual.

## **Teaching**

### **Graduate Courses**

- Special Topics in Research-Based Entrepreneurship. Computer Science & Engineering Department (cross-listed with the School of Engineering and the School of Business), University of Connecticut. Hybrid Graduate/Undergraduate course. Spring 2022.  
Special Topics in Information Ecosystem Threats. Computer Science & Engineering Department, University of Connecticut. Fall 2021.  
From Entrepreneurial Research to Research-Based Entrepreneurship. The Department of Information and Knowledge Management, University of Haifa. 2018.  
Advanced Data Structures. Teaching Assistant, Department of Computer Science, University of Haifa. 2006.

### **Undergraduate Courses**

- Applications in Ubiquitous Computing. Teaching Assistant, Department of Computer Science and Engineering, University of California, San Diego. 2010.  
Data Structures. Teaching Assistant (TO-equivalent), Department of Computer Science, University of Haifa, Haifa, Israel. 2004 – 2006.  
Database Management Systems. Teaching Assistant (TO-equivalent), Department of Computer Science, University of Haifa, Haifa, Israel. 2004 – 2006.

### **Academic Activities**

- 2022 Program Committee Member, ECIR Doctoral Consortium, 2022.  
2021 Program Committee Member, CHIIR 2022.  
2021 Program Committee Member, ECIR 2022.  
2019 Co-organizer, Third International Workshop on Recent Trends in News Information Retrieval (NewsIR), SIGIR 2019 Workshop.  
2017 Reviewer, Information Retrieval Journal, 2017.  
2016 European Conference on Information Retrieval (ECIR) workshop program committee.  
2016 Student Volunteer, ACM SIGKDD Conference On Knowledge Discovery And Data Mining (KDD).  
2015 – 2016 Reviewer, ACM International Conference on Web Search and Data Mining (WSDM).  
2015 Student Volunteer, ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR).  
2014 Reviewer, ACM Transactions on the Web (TWEB).

## Outreach

- 2021 Invited Speaker, “The Visibility to Disability in Entrepreneurship”, HealthTech 4 Medicaid Entrepreneurial Listening Hour.
- 2021 Invited Panelist, Data Science Professional Development panel, Central Massachusetts Women in Data Science (WiDS) Conference. Worcester, MA (virtual).
- 2020 Keynote Speaker, Giving in Networking and Negotiation: Adding Value to Others for Fun and Profit. ULaunch UMass. Amherst, MA.
- 2020 Workshop Instructor, Giving in Networking and Negotiation: Adding Value to Others for Fun and Profit. Hack(H)er413. Amherst, MA.
- 2017 Workshop Instructor, Giving in Networking and Negotiation: Adding Value to Others for Fun and Profit. Women Techmakers, Tel Aviv, Israel.
- 2016 Speaker, Giving in Networking and Negotiation: Adding Value to Others for Fun and Profit. Grace Hopper Celebration of Women in Computing, Houston, TX.
- 2016 Invited Panelist, How to Succeed in Graduate School: Advice from Outstanding Students, University of Massachusetts Amherst, MA.
- 2015 – 2016 Co-founder, Women in Information Retrieval.
- 2015 Nominee, Anita Borg Institute Board of Trustees. Nominated by over 200 professionals in the tech industry and academia.
- 2015 Speaker, Giving in Networking and Negotiation: Adding Value to Others for Fun and Profit. College of Information and Computer Sciences, University of Massachusetts Amherst, MA.
- 2014 Reviewer, NCWIT Award for Aspirations in Computing, National Center for Women & Information Technology (NCWIT).
- 2014 Discussant, “Stuck in the Shallow End: Education, Race, and Computing” Book Discussion with author Jane Margolis, Expanding Computer Education Pathways (ECEP), University of Massachusetts Amherst, MA.
- 2013 Founding committee member, Graduate Women in STEM, University of Massachusetts Amherst, MA.
- 2013 Mentor, Girls Connect with LEGO NXT Robots, Commonwealth Alliance for Information Technology Education (CAITE), University of Massachusetts Amherst, MA.
- 2013 Mentor discussion leader, Women in Engineering and Computing Career Day, Commonwealth Alliance for Information Technology Education (CAITE), University of Massachusetts Amherst, MA.
- 2011 – 2012 Moderator, Wearable Electronics Events, Department of Computer Science, University of Massachusetts Amherst, MA.
- 2010 Robot Judge for Southern California Qualifiers: FIRST Lego League. University of California, San Diego, CA.

## **Skills**

**Languages**      English (native), Hebrew (native), Swedish (basic).

**Programming**   Python, R, SQL, Java, C/C++, Javascript, HTML, PHP, bash, awk.