

Jason Hemann

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EDUCATION

2020	PhD in Computer Science Minor: Logic Certificate in Logic Advisor: Dan Friedman	Indiana University
2012	MS in Computer Science Advisor: Dan Friedman	Indiana University
2007	BS in Computer Science, Philosophy cum laude Advisor: Paul Myers	Trinity University
2007	BA in History cum laude	Trinity University

POSITIONS

2021–2022	Associate Teaching Professor CS Theory, Programming Langs,	Northeastern University
2020	Lecturer SwDev, Logic & Comp, CLP	Northeastern University
2020	Part-time Lecturer SwDev, OO Design	Northeastern University
2019	Visiting Scholar	Northeastern University
2018–2019	Clinical Instructor Programming Langs, CS II, SwDev	Northeastern University
2017–2018	Visiting Faculty Programming Langs	Rose-Hulman Inst. Tech.
2012–2017	Associate Instructor Programming Langs, Programming Langs (Graduate)	Indiana University
June 2014	Instructor miniKanren Summer School	University of Utah
June 2013	Instructor , Foundations in Science and Mathematics Intro to CS	Indiana University
2010–2012	Lab Instructor , Discrete Math for CS, CS Theory, CS for Non-Majors	Indiana University

PROFESSIONAL SERVICE

2020–2022	PLMW (Advisor)
2019–2022	miniKanren Workshop Steering Committee
2020	miniKanren Workshop (General Chair)
2020	Scheme Workshop (Publicity Chair)
2019	miniKanren Workshop (Program Committee)
2019	Scheme Workshop (Program Committee)
2016	Scheme Workshop (Bursar)
2015	ICFP (Student Volunteer)
2014	Scheme Workshop (General Chair, Publicity Chair)

Reviewing

Programming, ICFP, CPP, miniKanren Workshop, Scheme Workshop, ML Workshop

STEM Education Outreach

2021–2022	Women’s Community of Code (WCoC)	Northeastern University
	• Program Design (2021–2022)	
2013–2017	Foundations in Science and Mathematics	Indiana University
	• Grant Writing Team (2015–2017)	
	• Program Administration (2015–2017)	
	• Computer Science Program Lead (2014–2017)	
	• Computer Science Course Instructor (2013)	

AWARDS & RECOGNITIONS

Travel Awards

2017	IJCAI-17 Travel Grant
2017	CP/ICLP/SAT DP Travel Award
2016	PLMW Travel Award for SPLASH 2016
2016	SIGPLAN PAC Travel Award for SPLASH 2016
2016	Scheme 2016 Travel Scholarship
2016	SIGPLAN PAC Travel Award for ICFP 2016
2015	SIGPLAN PAC Travel Award for ICFP 2015
2015	NSF Travel Award for ECOOP 2015
2014	FLoC Travel Award for Vienna Summer of Logic
2014	ICLP Summer School Travel Award
2013	Scheme 2013 Travel Scholarship
2013	SIGPLAN PAC Travel Award for ICFP 2013
2012	NASSLLI 2012 Travel Award
2012	OPLSS Housing Grant
2012	NECSS 2012 Student Sponsorship

Other Awards

2020	IU Certificate in Logic
2017	Women’s Philanthropy Leadership Council Award (FSM)
2015	SOIC Associate Instructor of the Year

PUBLICATIONS

Books & Dissertations

- [BD1] **Jason Hemann**. “Constraint microKanren in the CLP Scheme.” PhD thesis. Indiana University, Bloomington, 01/2020. URL: <https://scholarworks.iu.edu/dspace/handle/2022/25183>.
- [BD2] Daniel P. Friedman, William E. Byrd, Oleg Kiselyov, and **Jason Hemann**. *The Reasoned Schemer, 2nd Edition*. The MIT Press, 01/2018. URL: <http://mitpress.mit.edu/books/reasoned-schemer-0>.

Journal & Selective Conference Papers

- [JC1] Daniel Schwab, Logan Cole, Karna Desai, **Jason Hemann**, Kate Hummels, and Adam Maltese. “A Summer Stem Outreach Program Run By Graduate Students: Successes, Challenges, And Recommendations For Implementation.” In: *Journal of Research in STEM Education* 4 (2 12/2018), pp. 117–129.
- [JC2] **Jason Hemann**, Daniel P. Friedman, William E. Byrd, and Matthew Might. “A Small Embedding of Logic Programming with a Simple Complete Search.” In: *Proc. of DLS’16*. Amsterdam, Netherlands: ACM, 11/2016. URL: <http://dx.doi.org/10.1145/2989225.2989230>.

Workshop Papers & Technical Reports

- [W1] **Jason Hemann** and Dmitri Boulytchev, eds. *Proceedings of the 2020 Workshop on miniKanren and Relational Programming, Northeastern University Technical Report NU-CCIS-2021-001*. Online: Department of Computer Science, Northeastern University, 08/2021. URL: <http://hdl.handle.net/2047/D20413639>.
- [W2] **Jason Hemann** and Daniel P. Friedman. “Some Novel miniKanren Synthesis Tasks.” In: *Proc. of miniKanren ’20*. Digital. Online, 08/2020. URL: <http://hdl.handle.net/2047/D20413639>.
- [W3] **Jason Hemann** and Daniel P. Friedman. “A Framework for Extending microKanren with Constraints.” In: *Joint Proc of WLP’15/’16/WFLP’16 29th*. Ed. by Sibylle Schwarz and Janis Voigtländer. Vol. 234. EPTCS. Open Publishing Association, 01/2017, pp. 135–149. URL: eptcs.web.cse.unsw.edu.au/content.cgi?WFLP2016.
- [W4] **Jason Hemann** and Daniel P. Friedman. “Deriving Pure, Functional One-Pass Operations for Processing Tail-Aligned Lists.” In: *Proc. of Scheme ’16*. Nara, Japan, 09/2016. URL: <http://scheme2016.snow-fort.org/static/scheme16-paper6.pdf>.
- [W5] **Jason Hemann** and John Clements, eds. *Proceedings of the 2014 Workshop on Scheme and Functional Programming, Indiana University Technical Report TR718*. Washington, D.C., USA: Department of Computer Science, Indiana University, 09/2015. URL: <http://cs.indiana.edu/pub/techreports/TR718.pdf>.
- [W6] **Jason Hemann** and Daniel P. Friedman. “A Framework for Extending microKanren with Constraints.” In: *Proc. of Scheme ’15, Northeastern University Technical Report NU-CCIS-2016-001*. Ed. by Andrew W. Keep and Ryan Culpepper. 09/2015. URL: <http://hdl.handle.net/2047/D20213213>.
- [W7] **Jason Hemann**, Cameron Swords, and Lawrence S Moss. “Two Advances in the Implementations of Extended Syllogistic Logics.” In: *Joint Proc. of NLPAR’15/LNMR’15*. Ed. by Marcello Balduccini, Alessandra Mileo, Ekaterina Ovchinnikova, Alessandra Russo, and Peter Schüller. Lexington, Kentucky, USA, 09/2015, pp. 1–15. URL: <http://peterschueler.com/pub/2015/nlpar2015-proceedings.pdf>.
- [W8] Daniel Brady, **Jason Hemann**, and Daniel P. Friedman. “Little Languages for Relational Programming.” In: *Proc of Scheme ’14, Indiana University Technical Report TR718*. Washington, D.C., USA, 09/2015, pp. 54–64. URL: <http://cs.indiana.edu/pub/techreports/TR718.pdf>.
- [W9] **Jason Hemann** and Daniel P. Friedman. “ μ Kanren: A Minimal Functional Core for Relational Programming.” In: *Proc. of Scheme ’13*. Digital. Alexandria, Virginia, USA, 11/2013. URL: schemeworkshop.org/2013/papers/HemannMuKanren2013.pdf.

- [W10] **Jason Hemann** and Daniel P. Friedman. “ λ^* : Beyond Currying.” In: *Proc. of Scheme '13*. Digital. Alexandria, Virginia, USA, 11/2013. URL: schemeworkshop.org/2013/papers/HemannCurrying2013.pdf.
- [W11] **Jason Hemann** and Eric Holk. “Visualizing the Turing Tarpit.” In: *Proc. of FARM '13*. FARM '13. Boston, Massachusetts, USA: ACM, 2013, pp. 71–76. URL: doi.acm.org/10.1145/2505341.2505348.
- [W12] **Jason Hemann**, Fatma Mili, and Paul Myers. “Synchronized Energy Efficient Clustering of Wireless Sensor Networks.” In: *Proc. of NCUR 2007*. San Rafael, California, 04/2007. URL: <http://ncurproceedings.org/ojs/>.

Presentations & Demonstrations

- [PD1] Daniel P. Friedman and **Jason Hemann**. “Implementing a microKanren.” In: *CodeMesh 2016*. London, England, 11/2016. URL: <http://youtube.com/watch?v=0FwIwewHC3o>.
- [PD2] Daniel P. Friedman and **Jason Hemann**. “From Functions To Relations in miniKanren.” In: *Øredev 2015*. Malmö, Sweden, 11/2015. URL: <http://vimeo.com/144710533>.
- [PD3] Daniel P. Friedman and **Jason Hemann**. “Generating a Quine.” In: *Midwest PL Summit '15*. West Lafayette, Indiana, USA, 12/2015.
- [PD4] Daniel P. Friedman and **Jason Hemann**. “How to be a Good Host: miniKanren as a Case Study.” In: *Curry On 2015*. Prague, Czech Republic, 07/2015. URL: <http://youtube.com/watch?v=b9C3r3dQnNY>.
- [PD5] Daniel P. Friedman and **Jason Hemann**. “Rapidly Rolling a Relational DSL.” In: *Øredev 2015*. Malmö, Sweden, 11/2015. URL: <http://vimeo.com/144988186>.
- [PD6] Daniel P. Friedman and **Jason Hemann**. “Roll Your Own Relational DSL: A Logic Programming Language in Less than 40 Lines.” In: *Lambda Jam 2014*. Chicago, Illinois, USA, 07/2014.
- [PD7] Daniel P. Friedman and **Jason Hemann**. “Write the Other Half of Your Program: From Functional to Logic.” In: *Strange Loop 2014*. St. Louis, Missouri, USA, 09/2014. URL: <http://youtube.com/watch?v=RG9fBbQrVOM>.
- [PD8] Daniel P. Friedman and **Jason Hemann**. “It’s Only Quine Time.” In: *Programming Languages Fest*. Bloomington, Indiana, USA, 10/2013. URL: <http://web.archive.org/web/20140113225905/lambda.soic.indiana.edu/programming-languages-fest>.
- [PD9] Daniel P. Friedman and **Jason Hemann**. “The Art of Several Interpreters, Quickly.” In: *Lambda Jam 2013*. Chicago, Illinois, USA, 07/2013.
- [PD10] **Jason Hemann**. “A Typed Trivalent Logic to Resolve Category Mistakes.” In: *North Georgia Student Philosophy Conference*. Kennesaw, Georgia, USA, 04/2007.

Doctoral Consortia

- [DC1] **Jason Hemann**, Daniel P. Friedman, William E. Byrd, and Matt Might. “A Simple Complete Search for Logic Programming.” In: *Technical Communications of the 33rd International Conference on Logic Programming (ICLP 2017)*. Ed. by Ricardo Rocha, Tran Cao Son, Christopher Mears, and Neda Saeedloei. Vol. 58. Melbourne, Australia: OASiCs, 2018, 14:1–14:8. URL: dagstuhl.de/dagpub/978-3-95977-058-3.

Invited Talks

- [T1] **Jason Hemann**. “Implementing a Kanren From the Ground Up.” NUSHackers @ National University of Singapore. 02/2021. URL: <https://www.nushackers.org/2021/01/friday-hacks-199/>.

Posters

- [Po1] **Jason Hemann**, Daniel P. Friedman, William E. Byrd, and Matt Might. *A Small Embedding of Logic Programming with a Simple Complete Search*. Poster presented at SPLASH '16, Nov. 2, 2016, Amsterdam, The Netherlands. 2016.

- [Po2] Karna Desai, Jing Yang, and **Jason Hemann**. *Foundations in Science and Mathematics Program for Middle School and High School Students*. Poster presented at AAS Meeting #227, Jan. 4-8, 2016, Kissimmee, Florida, USA. 2016. URL: <http://adsabs.harvard.edu/abs/2016AAS...22724612D>.

Panels

- [Pa1] Deyaaeldeen Almahallawi, **Jason Hemann**, Rin Metcalf, and Fatemeh Sharifi. *Associate Instructor Panel*. Panel Discussion IU SOIC Graduate Recruiting, Feb. 24, 2017, Bloomington, Indiana, USA. 2017.
- [Pa2] Charles Pope and **Jason Hemann**. *Associate Instructor Panel*. Panel Discussion at IU SOIC Associate Instructor Training, Sept. 11, 2015, Bloomington, Indiana, USA. 2015.

Interviews

- [I1] Aditi Peyush. *Classroom Q & A: Dr. Jason Hemann and Custom Programming*. 01/2021. URL: <https://www.khoury.northeastern.edu/classroom-qa-dr-jason-hemann-and-custom-programming/>.
- [I2] Eric Normand. *CodeMesh 2016 Talk Interview*. Interview with Eric Normand of PurelyFunctional, Oct. 12, 2016. 2016. URL: <http://purelyfunctional.tv/speaker-interview/jason-hemann-code-mesh-2016-interview/>.
- [I3] Eric Normand. *Pre-conj Scheme '14 Interview*. Interview with Eric Normand of LispCast, Nov. 17, 2014. 2014. URL: <http://lispcast.com/pre-conj-scheme-workshop>.

References

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