Kyle J. Harms

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https://kharms.infosci.cornell.edu/

Education

Washington University in St. Louis
Ph.D. in Computer Science   2010 – 2017
M.S. in Computer Science   2006 – 2009

Truman State University
B.S. in Computer Science, Minor in Spanish   2001 – 2005
Honors: Cum Laude

Teaching

Senior Lecturer   *2023 – present*
Lecturer   *2017 – 2023*
Cornell University

INFO 1300: Introductory Design and Programming for the Web   *Undergraduate*
Instructor   Fall 2017 – 2024

INFO 2300: Intermediate Design and Programming for the Web   *Undergraduate*
Instructor   Spring 2018 – 2024, Fall 2024

INFO 2310: Interactive Web Application Design and Development   *Undergraduate*
Instructor   Fall 2023, Spring 2025

INFO 4340/5440: App Design and Prototyping   *Undergraduate, Graduate*
Instructor   Fall 2018 – 2019; Spring/Fall 2021 – 2022; Spring 2023 – 2025

INFO 5900: MPS Project Practicum   *Graduate*
Instructor   Fall 2017, 2020; Spring 2018, 2019, 2020

eCornell: Web Design and Development   *Online Certificate*
Course Author   2019, 2024 – 2025

eCornell: JavaScript Programming   *Online Certificate*
Course Author   2021, 2023 – 2024

Graduate Research Assistant   *2010 – 2017*
Washington University in St. Louis

CSE 247: Data Structures and Algorithms   *Undergraduate*
Instructor   Summer 2016

CSE 556A: Human-Computer Interaction Methods   *Graduate*
Instructor   Summer 2016

Fellowships & Awards

Teaching Fellow 2021 – 2025
James McCormick Family Teaching Excellence Institute (MTEI) *Cornell University*

Merril Scholar's Most Influential Professor 2024
Merrill Presidential Scholars Program *Cornell University*

Teaching and Advising Excellence Award 2021 – 2022
Ann S. Bowers College of Computing and Information Science *Cornell University*

Invited Talks

Panel: "Applying to Teaching-Track Jobs" November 2024
Advanced IS PhD Students Professionalization Series, Cornell University

"Exploring how to Leverage Generative AI in Dining Organizations" March 2024
Ivy+ Dining Conference, Cornell University

Panel: "Navigating Teaching-Track Positions" November 2022
Advanced IS PhD Students Professionalization Series, Cornell University

"Supporting In-Class Programming Activities at Scale" September 2022
Provost Symposium on Teaching: 10 years of Active Learning, Cornell University

Guest Lecture: "Lesson Plan and Learning Goals" March 2022
Teaching and Learning Graduate Seminar, Cornell University

"Collaboration: Ideas for Group and Collaborative Assignments" January 2021
Center for Teaching Innovation (CTI), Cornell University

"Learning Programming Independently with Code Puzzles" May 2016
Knox College

Grants

"Embedding Equitable Design through Undergraduate Computing Curricula" NSF #2042324/ 2042341 $185,132/$146,546, 1/1/2021. PI (Margaret Burnett, Patricia Morreale), Advisory Board (Jodi Tims, **Kyle J. Harms**, Margaret Niess, Gail Verdi).

"Active Learning at Scale and Across Disciplinary Traditions." Cornell University Active Learning Initiative, Ithaca, NY $952,635, 8/16/2019-8/15/2022. Co-PI (Steve Jackson, Jeff Rzeszotarski, Cristian Danescu-Niculescu-Mizil, David Mimno, Rene Kizilcec, Phoebe Sengers, **Kyle J. Harms**, and Gilly Leshed).

Publications

Full Length Refereed Publications

Ichinco, Michelle, **Harms, Kyle J.**, and Caitlin Kelleher (2017). "Towards Understanding Successful Novice Example Use in Blocks-Based Programming." In: *Journal of Visual Languages and Sentient Systems: Special Issue on Blocks Programming.*

Harms, Kyle J., Evan Balzuweit, Jason Chen, and Caitlin Kelleher (Sept. 2016). "Learning Programming from Tutorials and Code Puzzles: Children's Perceptions of Value." In: *Visual Languages and Human-Centric Computing (VL/HCC), 2016 IEEE Symposium on*. Cambridge, United Kingdom.

Harms, Kyle J., Jason Chen, and Caitlin L. Kelleher (2016). "Distractors in Parsons Problems Decrease Learning Efficiency for Young Novice Programmers." In: *Proceedings of the 2016 ACM Conference on International Computing Education Research*. ICER '16. Melbourne, Vic, Australia: ACM, pp. 241–250. DOI: 10.1145/2960310.2960314.

Harms, Kyle J., Noah Rowlett, and Caitlin Kelleher (Oct. 2015). "Enabling independent learning of programming concepts through programming completion puzzles." In: *Visual Languages and Human-Centric Computing (VL/HCC), 2015 IEEE Symposium on*. Atlanta, Georgia, USA, pp. 271–279. DOI: 10.1109/VLHCC.2015.7357226.

Harms, Kyle J., Dennis Cosgrove, Shannon Gray, and Caitlin Kelleher (2013). "Automatically Generating Tutorials to Enable Middle School Children to Learn Programming Independently." In: *Proceedings of the 12th International Conference on Interaction Design and Children*. IDC '13. New York, New York, USA: ACM, pp. 11–19. DOI: 10.1145/2485760.2485764.

Short Refereed Publications

Harms, Kyle J., Jordana H. Kerr, Michelle Ichinco, Mark Santolucito, Alexis Chuck, Terian Koscik, Mary Chou, and Caitlin L. Kelleher (2012). "Designing a community to support long-term interest in programming for middle school children." In: *Proceedings of the 11th International Conference on Interaction Design and Children*. IDC '12. Bremen, Germany: ACM, pp. 304–307. DOI: 10.1145/2307096.2307152.

Harms, Kyle J., Jordana H. Kerr, and Caitlin L. Kelleher (2011). "Improving learning transfer from stencils-based tutorials." In: *Proceedings of the 10th International Conference on Interaction Design and Children*. IDC '11. Ann Arbor, Michigan, USA: ACM, pp. 157–160. DOI: 10.1145/1999030.1999050.

Other Publications

Morreale, Patricia, Margaret Burnett, **Harms, Kyle J.**, and Daehan Kwak (2025). "How We Did It: Integrating Inclusive Design across the Undergraduate Computer Science Curriculum." In: *Proceedings of the 56th ACM Technical Symposium on Computer Science Education*. SIGCSE TS '25. Pittsburgh, Pennsylvania, USA: ACM.

Harms, Kyle J. (Oct. 2015). "The impact of distractors in programming completion puzzles on novice programmers position statement." In: *Blocks and Beyond Workshop (Blocks and Beyond), 2015 IEEE*. Atlanta, Georgia, USA, pp. 9–10. DOI: 10.1109/BLOCKS.2015.7368990.

Ichinco, Michelle, **Harms, Kyle J.**, and Caitlin Kelleher (2015). "Utilizing Programmer Communities for End User Programmer Feedback." In: *International Reports on Socio-Informatics (IRSI)*. Proceedings of the CHI 2015 - Workshop on End User Development in the Internet of Things Era 12.2, pp. 15–20.

Harms, Kyle J. (July 2014). "Towards a programming environment that adaptively suggests examples and corresponding puzzles based on programmer skill." In: *Visual Languages and Human-Centric Computing (VL/HCC), 2014 IEEE Symposium on*. Melbourne, Vic, Australia, pp. 185–186. DOI: 10.1109/VLHCC.2014.6883047.

Medlock-Walton, Paul, **Harms, Kyle J.**, Eileen T. Kraemer, Karen Brennan, and Daniel Wendel (2014). "Blocks-based Programming Languages: Simplifying Programming for Different Audiences with Different Goals." In: *Proceedings of the 45th ACM Technical Symposium on Computer Science Education.* SIGCSE '14. Atlanta, Georgia, USA: ACM, pp. 545–546. DOI: 10.1145/2538862. 2538873.

Harms, Kyle J. (Sept. 2013). "Applying cognitive load theory to generate effective programming tutorials." In: *Visual Languages and Human-Centric Computing (VL/HCC), 2013 IEEE Symposium on.* San Jose, California, USA, pp. 179–180. DOI: 10.1109/VLHCC.2013.6645274.

Software

Looking Glass   https://lookingglass.wustl.edu/
novice programming environment for middle school children (open source)

PROFESSIONAL EXPERIENCE

Software Engineer – Level 2   2005 – 2010
The Boeing Company   *St. Louis, MO*

SERVICE

Associate Director Hiring Committee   McCormick Teaching Excellence Institute (MTEI)
2024 – 2025

Lecturer Hiring Committee   Information Science, Cornell University
2017 – 2018 – 2020, 2021 – 2022, 2023 – 2024, 2024 – 2025

Undergraduate Committee   Information Science, Cornell University
2019 – 2025

Branding and Website Planning, Core Committee   Cornell Bowers, Cornell University
2024 – 2025

Undergraduate TA Training   Information Science, Cornell University
2018 – 2025

Project Team Faculty Course Advisor   Cornell Design & Tech Initiative, Cornell University
INFO 1998: Trends in Web Development   *2018 – 2025*

Teaching and Advising Award Committee   Cornell Bowers, Cornell University
2023 – 2024

Undergraduate Curriculum Committee   Information Science, Cornell University
2022 – 2024

Workshop Organizer & Presenter   McCormick Teaching Excellence Institute (MTEI)
Engineering Teaching Day – "Leveraging Generative AI in Your Courses"   *Fall 2024*

Workshop Organizer & Presenter   McCormick Teaching Excellence Institute (MTEI)
Engineering Teaching Day – "Active Learning: Beyond Think-Pair-Share"   *Fall 2023*

Workshop Organizer   McCormick Teaching Excellence Institute (MTEI)
Engineering Teaching Day – "Facilitating Accommodations in Your Courses"   *Fall 2023*

Graduation Speaker
Information Science, Cornell University
May 2021, 2022

Reviewer
Special Interest Group on Computer-Human Interaction (SIGCHI)
2016, 2021, 2022

Workshop Organizer & Presenter
McCormick Teaching Excellence Institute (MTEI)
Engineering Teaching Day – "Active Learning: Building Student Connections with Content, Peers, and Your Course"
Fall 2022

Publications Chair
Visual Languages and Human-Centric Computing (VL/HCC)
2021

Workshop Organizer
James McCormick Family Teaching Excellence Institute (MTEI)
Teaching to Include Students Struggling from Educational Disruptions due to COVID   *Fall 2021*

Reviewer
Transactions on Computing Education (ToCE)
2018

Reviewer
International Journal of Child-Computer Interaction (IJCCI)
2017

Reviewer
Designing Interactive Systems (DIS)
2017

Reviewer
Special Interest Group on Computer Science Education (SIGCSE)
2016

Student Volunteer
Special Interest Group on Human-Computer Interaction (SIGCHI)
2011, 2012