

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

Lecturer 2017 – present

Cornell University

INFO 1300: Introductory Design and Programming for the Web *Undergraduate*

Instructor *Fall 2017, 2018, 2019, 2020, 2021, 2022*

INFO 2300: Intermediate Design and Programming for the Web *Undergraduate*

Instructor *Spring 2018, 2019, 2020, 2021, 2022, 2023*

INFO 4340/5440: App Design and Prototyping *Undergraduate, Graduate*

Instructor *Fall 2018, 2019; Spring/Fall 2021, Spring/Fall 2022, Spring 2023*

INFO 5900: MPS Project Practicum *Graduate*

Instructor *Fall 2017, 2020; Spring 2018, 2019, 2020*

eCornell: Web Design and Development *Online Certificate*

Course Author *2019*

eCornell: JavaScript Programming *Online Certificate*

Course Author *2021*

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 and Advising Excellence Award 2021 – 2022

Ann S. Bowers College of Computing and Information Science *Cornell University*

Teaching Fellow 2021 – 2023

James McCormick Family Teaching Excellence Institute (MTEI) *Cornell University*

INVITED TALKS

- Panel: “Navigating Teaching-Track Positions” November 2022
Information Science Colloquium Series, Cornell University
- “Supporting In-Class Programming Activities at Scale” September 2022
Provost Symposium on Teaching: 10 years of Active Learning, 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 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 Harms**, and Gilly Leshed).

PUBLICATIONS

Full Length Refereed Publications

- Ichinco, Michelle, Kyle J. Harms, 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

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, Kyle J. Harms, 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, Kyle J. Harms, 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
The Boeing Company

2005 – 2010
St. Louis, MO

SERVICE

Workshop Organizer & Presenter	McCormick Teaching Excellence Institute (MTEI) Engineering Teaching Day – “Active Learning: Building Student Connections with Content, Peers, and Your Course” <i>Fall 2022</i>
Undergraduate TA Training Instructor	Information Science, Cornell University <i>2018 – 2023</i>
Undergraduate Committee	Information Science, Cornell University <i>2019 – 2023</i>
Faculty Course Advisor	Cornell Design & Tech Initiative, Cornell University INFO 1998: Trends in Web Development <i>2018 – 2023</i>
Lecturer Hiring Committee	Information Science, Cornell University <i>2018 – 2020, 2021 – 2022</i>
Publications Chair	Visual Languages and Human-Centric Computing (VL/HCC) <i>2021</i>
Workshop Organizer	James McCormick Family Teaching Excellence Institute (MTEI) Teaching to Include Students Struggling from Educational Disruptions due to COVID <i>Fall 2021</i>
Graduation Speaker	Information Science, Cornell University <i>May 2021</i>
Reviewer	Special Interest Group on Computer-Human Interaction (SIGCHI) <i>2016, 2021, 2022</i>
Lecturer Hiring Committee	Computing and Information Science, Cornell University <i>2017 – 2018</i>
Reviewer	Transactions on Computing Education (ToCE) <i>2018</i>
Reviewer	International Journal of Child-Computer Interaction (IJCCI) <i>2017</i>
Reviewer	Designing Interactive Systems (DIS) <i>2017</i>
Reviewer	Special Interest Group on Computer Science Education (SIGCSE) <i>2016</i>
Student Volunteer	Special Interest Group on Human-Computer Interaction (SIGCHI) <i>2011, 2012</i>