

# DAVID WEINTROP

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UNIVERSITY OF MARYLAND  
2226D BENJAMIN BUILDING  
COLLEGE PARK, MD 20742

## APPOINTMENTS

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**University of Maryland** 2017 - present  
Assistant Professor  
Department of Teaching and Learning, Policy and Leadership  
College of Education  
College of Information Studies

## EDUCATION

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**Northwestern University** 2010 - 2016  
PhD, Learning Sciences  
Advisor: Uri Wilensky

**University of Michigan** 2001 - 2005  
B.S. Computer Science, Honors  
College of Literature, Science, and the Arts

## RESEARCH & PROFESSIONAL EXPERIENCE

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**University of Chicago** 2016 - 2017  
*Postdoctoral Researcher*  
UChicago STEM Education  
Advisor: Diana Franklin

**Northwestern University** 2011 - 2015  
*Research Assistant*  
Casting a Wide-Net: Bringing Computational Thinking to STEM  
PIs: Uri Wilensky, Michael Horn, Kemi Jona

**Backstop Solutions** 2008 – 2010  
*Software Developer*  
Built a web application used to manage billions of dollars in assets for hedge funds, private equity firms, endowments, and pension funds.  
Technology stack: Oracle, Hibernate, Java, Spring, Stripes, JSPs, jQuery

**Incisent Technologies** 2005 – 2007  
*Software Developer*  
Built a suite of web applications designed to optimize inventory and improve customer relations/tracking for the automotive retail industry.  
Technology stack: MySQL, Hibernate, Java, Spring, Struts, JSPs, prototype

## PUBLICATIONS

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### *Journal Articles*

Pei, C., **Weintrop, D.** & Wilensky, U. (In Press). Cultivating Computational Thinking Practices and Mathematical Habits of Mind in Lattice Land. *Mathematical Thinking and Learning*.

**Weintrop, D.** & Wilensky, U. (2017). Comparing Blocks-based and Text-based Programming in High School Computer Science Classrooms. *Transactions on Computing Education.*, 18(1), 1-25.

**Weintrop, D.** & Wilensky, U. (2017). How Block-based Languages Support Novices: A Framework for Categorizing Block-based Affordances. *Journal of Visual Languages and Sentient Systems*, 3, 92–100.

Brady, C., Orton, K., **Weintrop, D.**, Anton, G., Rodriguez, S. & Wilensky, U. (2016). All Roads Lead to Computing: Making, Participatory Simulations, and Social Computing as pathways to Computer Science. *IEEE Transactions on Education*, 60(99), 1-8.

**Weintrop, D.** & Wilensky, U. (2016). Playing by programming: Making gameplay a programming activity. *Educational Technology*, 56(3), 36–41.

**Weintrop, D.**, Holbert, N., Wilensky, U. & Horn, M. S. (2016). Computational thinking in constructionist video games. *International Journal of Game-based Learning*, 6(1), 1–17.

**Weintrop, D.**, Beheshti, E., Horn, M., Orton, K., Jona, K., Trouille, L., & Wilensky, U. (2016). Defining Computational Thinking for Mathematics and Science Classrooms. *Journal of Science Education and Technology*, 25(1), 127–147.

**Weintrop, D.** & Wilensky, U. (2014). Situating programming abstractions in a program-to-play game. *Informatics in Education*, 13(2), 307-321.

*Under Review*

**Weintrop, D.** & Wilensky, U. (Under Review). How Block-based, Text-based, and Hybrid Block/Text Modalities Shape Novice Programming Practices.

**Weintrop, D.**, Bau, D. & Wilensky, U. (Under Review). The Cloud is the Limit: Programming on the Web, With the Web.

**Weintrop, D.** & Wilensky, U. (Under Review). Transitioning from Introductory Block-based and Text-based Environments to Professional Programming Languages in High School Computer Science Classrooms.

### ***Invited Book Chapters***

**Weintrop, D.** & Wilensky, U. (2014). Designing for Computational Expression: Four Principles for the Design of Learning Environments Towards Computational Literacy. In D. J. Loveless, B. Griffith, M. Berci, E. Ortlieb, P. Sullivan (Eds.), *Academic Knowledge Construction and Multimodal Curriculum Development*. Hershey, PA: IGI Global.

### ***Peer-Reviewed Conference Proceedings\****

**Weintrop, D.**, Afzal, A., Salac, J., Francis, P., Li, B., Shepherd, D. & Franklin, D. (2018). Evaluating CoBlox: A Comparative Study of Robotics Programming Environments for Adult Novices. Paper to be presented at CHI 2018. Montréal, Canada.

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\*In the field of Computer Science, archival conference proceedings such as the Association for Computing Machinery's (ACM) CHI, IDC, ICER, and CSE are among the top publication venues. These are peer-reviewed publications with low acceptance rates (CHI's acceptance rate has ranged from 15-25%). Conference proceeding publications rival top journals in the field in their selectivity, citations, and influence. Thus, within the fields of human-computer interaction and computing education proceedings publications are considered on par with publications in a journal.

- Weintrop, D.**, & Wilensky, U. (2017). Between a Block and a Typeface: Designing and Evaluating Hybrid Programming Environments. Paper to be presented at Interaction Design and Children 2017. Palo Alto, CA.
- Weintrop, D.**, & Holbert, N. (2017). From Blocks to Text and Back: Programming Patterns in a Dual-Modality Environment. In Proceedings of the 2017 ACM SIGCSE Technical Symposium on Computer Science Education (pp. 633–638). New York, NY, USA: ACM.
- Weintrop, D.**, Shepherd, D., Francis, P. & Franklin, D. (2017). Blockly Goes to Work: Block-based Programming for Industrial Robots. Proceedings of the 2017 IEEE Blocks and Beyond Workshop (Blocks and Beyond).
- Franklin, D., Skifstad, G., Rolock, R., Mehrotra, I, Ding, V., Hansen, A., **Weintrop, D.** & Harlow, D. (2017). Using Upper-Elementary student performance to understand conceptual sequencing in a blocks-based Curriculum. In Proceedings of the 2017 ACM SIGCSE Technical Symposium on Computer Science Education (pp. 231–236). New York, NY, USA: ACM.
- Orton, K., **Weintrop, D.**, Beheshti, E., Horn, M., Jona, K. & Wilensky, U. (2016). Bringing Computational Thinking into High School Mathematics and Science Classrooms. Proceedings of the International Conference of the Learning Sciences (ICLS) 2016. Singapore.
- Brady, C., **Weintrop, D.**, Anton, G., & Wilensky, U. (2016). Constructionist Learning at the Group Level with Programmable Badges. Proceedings of the Constructionism 2016 Conference. Bangkok, Thailand.
- Brown, N. C. C., Mönig, J., Bau, A., & **Weintrop, D.** (2016). Future Directions of Blocks-based Programming. Panel presented at the 47th ACM Technical Symposium on Computer Science Education (SIGCSE).
- Weintrop, D.** & Wilensky, U. (2015). Using Commutative Assessments to Compare Conceptual Understanding in Blocks-based and Text-based Programs. In Proceedings of the 11<sup>th</sup> annual International Computing Education Research (ICER) conference. New York, NY, USA: ACM.
- Weintrop, D.** (2015). Comparing Text-based, Blocks-based, and Hybrid Blocks/Text Programming Tools. In Proceedings of the 11<sup>th</sup> annual International Computing Education Research (ICER) conference. New York, NY, USA: ACM.
- Brady, C., **Weintrop, D.**, Gracey, K., Anton, G., & Wilensky, U. (2015). The CCL-Parallax Programmable Badge: Learning with Low-Cost, Communicative Wearable Computers. In Proceedings of the 16th Annual Conference on Information Technology Education (pp. 139–144). New York, NY, USA: ACM.
- Weintrop, D.** & Wilensky, U. (2015). To Block or not to Block, That is the Question: Students' Perceptions of Blocks-based Programming. In Proceedings of the 14th International Conference on Interaction Design and Children. New York, NY, USA: ACM.
- Weintrop, D.** & Wilensky, U. (2015). The Challenges of Studying Blocks-based Programming Environments. 2015 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC).
- Weintrop, D.** (2015). Blocks, Text, and the Space Between The Role of Representations in Novice Programming Environments. (2015). IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC).

- Weintrop, D.**, Wilensky, U., Roscoe, J., & Law, D. (2015). Teaching Text-based Programming in a Blocks-based World. In Proceedings of the 46th ACM Technical Symposium on Computer Science Education (p. 678). New York, NY, USA: ACM.
- Weintrop, D.** (2015). Minding the Gap Between Blocks-Based and Text-Based Programming. In Proceedings of the 46th ACM Technical Symposium on Computer Science Education (p. 720). New York, NY, USA: ACM.  
**1<sup>st</sup> Place – Student Research Competition.**
- Weintrop, D.**, Head, B., & Wilensky, U. (2015). Plotting Programming Trajectories with the NetLogo Data Explorer. In Proceedings of Information Visualization, 2015. Chicago, IL. IEEE.
- Weintrop, D.** & Wilensky, U. (2015) Keeping it Old School: Classic Video Games as Inspiration for Modern Student Programs. *Proceedings of Games, Learning, & Society 11*. Madison, WI.
- Holbert, N., **Weintrop, D.**, Wilensky, U., Sengupta, P., Killingsworth, S., Krinks, K., Brady, C., Clark, D., Klopfer, E., Shapiro, R. B., & Russ, R. (2014) Constructionist video games: *Combining Video Games and Constructionist Design to Support Deep Learning in Play*. Symposium at the 2014 International Conference of the Learning Sciences. Boulder, CO.
- Horn, M. S., **Weintrop, D.**, & Routman, E. (2014). Programming in the pond: A tabletop computer programming exhibit. In *Proceedings of the Extended Abstracts of the 32nd Annual ACM Conference on Human Factors in Computing Systems* (pp. 1417–1422). New York, NY, USA: ACM.
- Weintrop, D.**, Beheshti, E., Horn, M. S., Orton, K., Jona, K., Trouille, L., & Wilensky, U. (2014) Interactive Assessment Tools for Computational Thinking in High School STEM Classrooms. INTETAIN 2014, Chicago, IL.
- Weintrop, D.** & Wilensky, U. (2014). Program-to-play videogames: Developing computational literacy through gameplay. *Proceedings of Games, Learning, & Society 10* (pp. 264-271). Madison, WI.
- Weintrop, D.** & Wilensky, U. (2014). Situating programming abstractions in a program-to-play game. *Proceedings of the Constructionism 2014 Conference*. Vienna, Austria.
- Weintrop, D.**, & Wilensky, U. (2013). Know your enemy: Learning from in-game opponents. In Proceedings of the 12th International Conference on Interaction Design and Children (pp. 408–411). New York, NY, USA: ACM.
- Weintrop, D.**, & Wilensky, U. (2013). RoboBuilder: A computational thinking game. In *Proceeding of the 44th ACM technical symposium on Computer science education* (pp. 736–736). Denver, CO: ACM.
- Weintrop, D.**, Holbert, N., Wilensky, U., & Horn, M. S. (2012). Redefining constructionist video games: Marrying constructionism and video game design. In C. Kynigos, J. Clayson, & N. Yiannoutsou (Eds.), *Proceedings of the Constructionism 2012 Conference*. Athens, Greece.
- Weintrop, D.**, & Wilensky, U. (2012). RoboBuilder: A Program-to-Play Constructionist Video Game. In C. Kynigos, J. Clayson, & N. Yiannoutsou (Eds.), *Proceedings of the Constructionism 2012 Conference*. Athens, Greece.

### **White Papers**

Jona, K., Wilensky, U., Trouille, L., Horn, M. S., Orton, K., **Weintrop, D.**, & Beheshti, E. (2014). Embedding Computational Thinking in Science, Technology, Engineering, and Math (CT-STEM). Presented at the 2014 CE21 PI and Community Meeting, Orlando, FL.

### **Poster and Presentations**

**Weintrop, D.**, Hansen, A, Harlow, D. & Franklin, D. (2018). Bringing Computer Science into Elementary School Classrooms. Paper to be presented at AERA 2018. New York, NY, USA

**Weintrop, D.**, & Wilensky, U. (2018). How the Block-based, Text-based, and Hybrid Block/Text Modalities Shape Conceptual Understandings of Programming Concepts. Paper to be presented at AERA 2018. New York, NY, USA

**Weintrop, D.**, Bain, C. & Wilensky, U. (2017). Blocking Progress? Transitioning from Blocks-based to Text-based Programming. Paper to be presented at AERA 2017.

Wilensky, U. & **Weintrop, D.** (2017). Constructionist Approaches for Computational Thinking in Math and Science Classrooms. Paper to be presented at AERA 2017.

**Weintrop, D.** & Wilensky, U. (2017). Blocks-based Programming and Preparation for Future Computer Science Learning. Poster to be presented at AERA 2017.

Beheshti, E., **Weintrop, D.**, Swanson, H., Orton, K., Horn, M.S., Jona, K., Trouille, L., & Wilensky, U. (2017). Computational Thinking in Practice: How STEM Professionals Use CT in Their Work. Poster to be presented at AERA 2017.

Holbert, N. & **Weintrop, D.** (2017). Exploring why novice programmers switch between text and blocks in a dual-modality coding environment. Paper to be presented at AERA 2017.

**Weintrop, D.** & Wilensky, U. (2016) Cognitive affordances of blocks-based programming in a two-dimensional construction space. Presented at the 46<sup>th</sup> Annual Meeting of the Jean Piaget Society Annual Meeting, Chicago, IL, USA.

**Weintrop, D.**, Orton, K., Horn, M.S., Beheshti, E., Trouille, L., Jona, K., & Wilensky, U. (2016). Computational Thinking in the Science Classroom. Invited session to be presented at the annual meeting of the National Science Teachers Association (NSTA). Nashville, TN.

**Weintrop, D.** & Wilensky, U. Bringing Blocks-based Programming into High School Computer Science Classrooms. (2016) Paper presented at the Annual Meeting of the American Educational Research Association (AERA 2016), Washington DC, USA.

**Weintrop, D.**, Orton, K., Horn, M.S., Beheshti, E., Trouille, L., Jona, K., & Wilensky, U. (2015). Computational Thinking in the Science Classroom: Preliminary Findings from a Blended Curriculum. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST). Chicago, IL.

Beheshti, E., **Weintrop, D.**, Orton, K., Horn, M.S., Jona, K., Trouille, L., & Wilensky, U. (2015). Bringing Expert Computational Practices into High School Science Classrooms. Poster presented at the annual meeting of the National Association for Research in Science Teaching (NARST). Chicago, IL.

**Weintrop, D.**, Orton, K., Horn, M.S., Beheshti, E., Trouille, L., Jona, K., & Wilensky, U. (2015). Outcomes of Bringing Computational Thinking into STEM Classrooms. Paper

presented at the Annual Meeting of the American Educational Research Association (AERA 2015), Chicago, USA.

**Weintrop, D.**, Beheshti, E., Horn, M. S., Orton, K., Jona, K., Trouille, L., & Wilensky, U. (2014). Defining Computational Thinking for Science, Technology, Engineering, and Math. Poster presented at the Annual Meeting of the American Educational Research Association (AERA 2014), Philadelphia, USA.

**Weintrop, D.**, Beheshti, E., Horn, M., Jona, K., Kalogera, V., & Wilensky, U. (2013) Casting a Wide Net: Embedded Computational Thinking in STEM. (2013) NSF Showcase at the *44th ACM technical symposium on Computer science education* (pp. 736–736). Denver, CO.

Trouille, L., Beheshti, E., Horn, M., Jona, K., Kalogera, V., **Weintrop, D.**, & Wilensky, U. (2013). Bringing Computational Thinking into the High School Science and Math Classroom. In *American Astronomical Society, AAS Meeting #221, #201.09*.

**Weintrop, D.**, & Wilensky, U. (2013). Supporting Computational Expression: How Novices Use Programming Primitives in Achieving a Computational Goal. Presented at the American Education Researchers Association (AERA), San Francisco, CA, USA.

**Weintrop, D.**, & Wilensky, U. (2013). Learning by Leveling: An Incremental Introduction to Programming. Presented at the 43<sup>rd</sup> Annual Meeting of the Jean Piaget Society Annual Meeting, Chicago, IL, USA.

**Weintrop, D.**, Hjorth, A., & Wilensky, U. (2013). Know Your Network: Learning Social Networks Analysis Through Meaningful Manipulation. InfoSocial 2013. Evanston, IL, USA.

Horn, M., **Weintrop, D.**, Beheshti, E. & Olson, I. Spinners, Dice, and Pawns: Using board games to prepare learners for agent-based modeling activities. (2012) In M. Berland (chair) and Kafai, Y. (discussant), *Fiddling on the fly: thinking, learning, and designing using board games*. Symposium presented at the annual meeting of the American Education Research Association, Vancouver, British Columbia.

## **HONORS, AWARDS & FELLOWSHIPS**

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Northwestern Dissertation Year Fellowship	2015-2016
1 <sup>st</sup> Place in the Graduate Student Research Competition at SIGCSE 2015	2015
Norman Design Fund Travel Grant	2015
Northwestern Cognitive Sciences Travel Grant	2013, 2015
Northwestern University Presidential Fellowship Nominee	2014
Northwestern Graduate School Travel Grant	2013, 2014
Northwestern School of Education and Social Policy Travel Grant	2012-16
NSF Graduate Research Fellowship Program – Honorable Mention	2012
Northwestern Cognitive Science University Fellowship	2010 - 2011

## **GRANTS, GIFTS, AND FUNDED RESEARCH**

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**Talking to Robots – Block-by-Block** **\$100,000**  
Gift from the ABB Group 2017

Co-PIs: David Weintrop & Diana Franklin

This year-long project was a joint venture with the ABB Group to design an intuitive, accessible block-based programming interface for their Roberta industrial robot.

**Scratch Encore - Equity via a Flexible, Advanced Scratch Curriculum for Diverse Students and Teachers in Upper Elementary** **\$1,014,811**

NSF CS4All – CNS 1738758

2018-2020

PIs: Diana Franklin, **David Weintrop**, Andy Isaacs, Brenda Wilkerson

This researcher-practitioner project seeks to answer the following research question: How can we create advanced elementary Computer Science instructional materials that value advancing equity equally with student learning outcomes? In collaboration with the Chicago Public School district, we will investigate the current landscape of upper-elementary computer science instruction and will create an advanced Scratch curriculum focused on equity to help bridge introductory computer science learning experience with high school computing educational opportunities.

***Pending***

**DataLit4Kids - Promoting Data Literacy for Children Using Visual and Physical Computing**

**\$2,879,000**

NSF CHS Core - IIS

2018-2021

PIs: Niklas Elmquist, Tammy Clegg, **David Weintrop**, Catherine Plaisant, Elizabeth Bongsignore, Victor Lee, Greg Walsh

**Know Your Natural Neighbors: Computational approaches supporting ecological systems**

**\$3,000,000**

NSF DRK12 - EHR

2018-2021

PIs: Thomas Philip, Katie Taylor, **David Weintrop**, Pamela Yeh, Matthew Madison, Chris Hoadley

**INVITED TALKS**

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Defining, Designing and Documenting Computational Thinking for K-12 Education. Center for the Advanced Study of Communities and Information Speaker Series. College Park, MD. 2017

To Block or Not to Block: Understanding the Effects of Programming Language Representation in High School Computer Science Classrooms. Human-Computer Interaction Lab Speaker Series. College Park, MD. 2017

Modality Matters: Understanding the Design of Introductory Programming Environments. Keynote Address at the 2016 Consortium for Computing Sciences in Colleges, Midwest Conference.

Computer Science at a Crossroads: Understanding Introductory Programming Environments. Google Chicago. Chicago, IL. 2016.

Computer Science at a Crossroads: Understanding Introductory Programming Environments. Northwestern University Computer Science Education Day. Evanston, IL. 2016

Modality Matters: Understanding the Design of Introductory Programming Environments. Code.org. Seattle, WA. 2016.

Bringing Computational Thinking into Math and Science Classrooms. University of Chicago Department of Computer Science. Chicago, IL. 2016.

Defining Computational Thinking in High School Math and Science. K-12 Computer Science Framework Thought Leaders workshop. Chicago, IL. 2015.

Blocks, Text, and the Space Between: The Role of Representation in Novice Programming Environments. Massachusetts Institute of Technology. Cambridge, MA. 2015.

Modality Matters: Teaching the Next Generation of Computer Scientists. DePaul University. Chicago, IL. 2015.

Teaching Computer Science: Where We Are, What We Know, and Where We Might be Heading. Google Chicago. Chicago, IL. 2014.

## TEACHING EXPERIENCE

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### University of Maryland

User-Centered Design Spring 2018  
Graduate Seminar on Research & Technology Spring 2018

### Northwestern University (Teaching Assistantships)

Design of Technological Tools for Thinking and Learning Winter, 2013, 2015 & 2016  
Designing and Constructing Models with Multi-Agent Languages Spring, 2013 & 2015

### Jane Addams Resource Corporation (Course Designer/Teacher)

Computer Literacy courses for Adult Learners Fall, 2009

### Conference Workshops

Brady, C, **Weintrop, D.**, & Bain, C. "Hacking the Conference Badge". Workshop at the *2<sup>nd</sup> Annual International Conference on Computational Social Science*. Evanston, Illinois. June, 2016

**Weintrop, D.**, Hjorth, A., & Wilensky, U. "NetLogo Web: Bringing Turtles to the Cloud". Workshop at *Constructionism 2016*. Bangkok, Thailand. February, 2016

Hjorth, A., **Weintrop, D.**, & Wilensky, U. "LevelSpace: Constructing Models and Explanations across Levels". Workshop at *Constructionism 2016*. Bangkok, Thailand. February, 2016

**Weintrop, D.**, Hjorth, A., & Wilensky, U. "Know Your Network: Learning Social Networks Analysis Through Meaningful Manipulation with NetLogo". Workshop at *Constructionism 2014*. Vienna, Austria. August, 2014

Johnson, E., Hadzikadic, M., **Weintrop, D.**, & Holbert, N. "Understanding Complexity II: A Simple Guide to Using and Developing Agent-Based Models for Research". Workshop at the 2013 American Political Science Association Annual Meeting. Chicago, IL. August, 2013

Stonedahl, F., **Weintrop, D.**, Bumbacher, E., Deustch, A, & Shannon, C. "NetLogo: Teaching with Turtles and Crossing Curricular Boundaries". Workshop at 2013 ACM technical symposium on Computer science education. Denver, CO. March, 2013

Hjorth, A., & **Weintrop, D.** "NetLogo Workshop". Workshop at *Constructionism 2012*. Athens, Greece. August, 2012

## SOFTWARE

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**Weintrop, D.** (2015). Pencil.cc. Evanston, IL: Center for Connected Learning and Computer-Based Modeling, Northwestern University. <https://github.com/dweintrop/pencilcode> and <http://pencil.cc>



**Weintrop, D.** (2014). Snappier! Evanston, IL: Center for Connected Learning and Computer-Based Modeling, Northwestern University. <https://github.com/dweintrop/BoB-site> and <http://snappier.herokuapp.com>

**Weintrop, D.** (2014). Javaseer. Evanston, IL: Center for Connected Learning and Computer-Based Modeling, Northwestern University. <https://github.com/dweintrop/javaseer>

**Weintrop, D.** (2014). BlueJ Chirper. Evanston, IL: Center for Connected Learning and Computer-Based Modeling, Northwestern University. <https://github.com/dweintrop/BlueJChirper>

**Weintrop, D. & Horn, M. S.** Computational Thinking in STEM Online Assessment Framework. (2013) Evanston, IL. Northwestern University. <http://ct-stem-assess.herokuapp.com> and <https://github.com/TIDAL-Lab/ct-stem>

**Weintrop, D.** *RoboBuilder*. (2011) Evanston, IL: Center for Connected Learning and Computer-Based Modeling, Northwestern University. <http://ccl.northwestern.edu/roboBuilder>.

## **PROFESSIONAL ACTIVITIES & SERVICE**

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**K-12 Computer Science Framework – Writer** 2015 - Present  
Contributing writer to the Computer Science K-12 Framework organized by Code.org, ACM, and the CSTA. I wrote substantial portions of the Impacts of Computing section. More information on the framework is available at <http://k12cs.org>

**New Media Faculty Search - Student Representative** 2013 – 2014  
Northwestern University Department of Learning Sciences' New Media and Learning faculty search.

### **Conference Committees**

International Conference for the Learning Sciences (2018), Program Committee  
Blocks and Beyond (2017), Program Committee  
International Conference on Computational Thinking in Education (2017), Program Committee

### **Ad-Hoc Reviewer (selection)**

ACM CHI  
ACM Interaction Design and Children (IDC)  
ACM SIGCSE  
ACM Transaction on Computing Education (TOCE)  
American Education Research Association (AERA) Annual Conference  
Computers and Education  
Computer Science Education  
FabLearn  
Games+Learning+Society  
IEEE Transactions on Emerging Topics in Computing  
Interactive Learning Environments  
International Conference for the Learning Sciences (ICLS)  
International Journal of Child-Computer Interaction (IJCCI)  
Journal of Science Education and Technology

### **Membership**

American Education Research Association (AERA)  
Association of Computing Machinery (ACM)

Institute of Electrical and Electronics Engineers (IEEE)  
International Society of the Learning Sciences (ISLS)

### **STUDENTS MENTORED**

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<b>Heather Killen</b> – Graduate Assistantship	Fall 2018 -
<b>Merijke Conraad</b> – Graduate Assistantship	Fall 2018 -
<b>Connor Bain</b> – Learning Sciences Independent Study	Spring 2016
<b>Randall Harris II</b> – Computer Science	Work/Study
<b>Amanda Anumba</b> – Computer Science Independent Study	Fall 2014
<b>Kevin Jin</b> – Computer Science Work/Study	Summer-Fall 2014

### **TECHNICAL SKILLS**

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- Fluent in Java, JavaScript, Python, C and C++ programming languages.
- Experience with numerous educational and modeling frameworks: NetLogo, Alice, Blockly, Scratch, Snap!, Pencil Code, OpenBlocks, BlueJ, Greenfoot
- Proficient with SQL and relational databases.
- Have contributed to projects built with Django, Ruby on Rails, PHP, and ASP.Net 2.0 as well as numerous Java-based stacks.
- Experience with the following web frameworks and technologies:
  - jQuery, Grunt, Node.js, Heroku, Django, Hibernate, Spring, Guice, Stripes, Struts, AJAX, AspectJ, Xfire, Web Services (SOAP, WSDL), Ant, JSPs, RESTful web services, Apache, Tomcat, JBoss, CDNs, Eclipse Plugin Framework