**EDUCATION**

*2018- 2022* **Ph.D. Candidate in Child Study and Human Development**

Tufts University, Medford, MA

Advisor: Dr. Marina Umaschi Bers

*2016-2018* **M.A. in Child Study and Human Development**

Tufts University, Medford, MA

*2012- 2016* **B.A. in Psychology and Public Health**

Muhlenberg College, Allentown, PA

**Professional EXPERIENCE**

*2022-present* **Senior Research Associate**, Education Development Center

Center for Children and Technology, NYC, Supervisor Ashley Lewis-Presser, Ph.D.

* **Project Co-Leader:** Study of*Work it out WOMBATS!* media. Co-leading studies on impact of new media on children’s critical thinking, computational thinking, and social-emotional skills. Ready to Learn *PR/Award # S295A200004, Corporation for Public Broadcasting (CPB) with Public Broadcasting Service (PBS)*

*2016-2022* **Graduate** **Researcher**,Developmental Technologies Research Group

Tufts University, Medford, MA., P.I. Marina U. Bers, Ph.D.

* **Project Lead:** [*TechCheck*](https://sites.tufts.edu/instruments/techcheck/), TACTIC-KIBO, and CSA-KIBO: Created and validated 3 novel assessment instruments measuring computational thinking and coding skills in children. *TechCheck* has been used in 22 countries and translated into at least 5 other languages.
* **Project Manager:** CAL (Coding as Another Language) KIBO: Supervised all aspects of conduct of a multi-site DODEA funded research project involving 10 elementary schools, 77 educators, and over 1000 children K-2. *DODEA grant: “WORLDCL10”, M. Bers, PI.*
* **Researcher:** CAL (Coding as Another Language) ScratchJr: Helped develop, implement, and oversee research of a large-scale study involving 33 schools and thousands of children. *Department of Education PR/Award #: U411C1900, M. Bers, PI.*
* **Researcher:** Engaging Head Start and homeless preschool students with KIBO Robotics: Aided in study design and oversaw implementation of a KIBO robotics curricula to preschool children. *LEGO Foundation though Grant “Supporting and Amplifying Local Organizations Engaged in Playful Engineering-Based Learning Post-COVID”, M. Bers, PI.*
* **Project Co-Leader:** KIBO and ScratchJr Family Coding Days: Co-led a project that brought children ages 5-7 and their families together to co-engage in creative coding projects. *NSF grant: DRL-1118664,**M. Bers, PI*
* **Researcher:** KIBO Robot in Children with Severe ASD: Implemented a novel video coding method for a study examining the positive social impacts that the KIBO robotics kit had on children with Autism Spectrum Disorder. *NSF DRL-1118897, M. Bers, PI*

*2021-present* **Research Consultant**, HOMER Learning (codeSpark Academy), Virtual

1. **Research Consultant**,The Learning Bridge Project*,* Boston, MA

**VOLUNTEER EXPERIENCE**

*2020-2022* **Intern**,National Center for Research on Evaluation, Standards, and Student Testing (CRESST), UCLA, Gregory K.W.K Chung, PI

*2018-present* **Peer Reviewer**,Computers & Education, Early Childhood Research Quarterly, Mathematical Thinking and Learning, International J of Child-Computer Interaction, Paladyn. J of Behavioral Robotics, J of Research in STEM Education

*2017-2019* **Volunteer**, Housing Families Inc, Malden MA

*2016* **Workshop Facilitator**,One Love Foundation Escalation**,** Allentown, PA

*2015- 2016* **Peer Health Advocate**,PHAM,Allentown, PA

*Summer 2015* **Intern**,Rockland County NY Dept. of Health, Immunization Study, Oscar Alleyne, MPH, DrPH, PI

*Summer 2014* **Intern**, Rockland County, NY Child Protective Services

*Spring 2014* **Research Assistant**:Sleep & Stress Study**,** Muhlenberg College, Erika Bagley, PI

*2013 -2016* **Volunteer**,Turning Point, Allentown, PA

**Teaching Experience**

*2019* **Co-instructor**,Pathfinder Infosys, Bloomington, Indiana

*2018-2022* **Invited****Guest Lecturer**,Tufts University,Medford MA

*2017-2019* **Teaching Assistant**,Early Childhood Technology Graduate Certificate Program**,** Tufts Univ, Medford MA

*2017, 2018* **Lead Counselor**,DevTech Summer Enrichment Program

*2016-2017* **Assistant Teacher***,* Eliot Pearson Children’s School, Boston MA

*2015* **Assistant Teacher,** Maibara Elementary School, Maibara, Japan

**Peer-Reviewed JOURNAL Publications**

1. Strawhacker, A., **Relkin, E**., Bers, M.U. (2022). Designing an Adaptive Assessment for Preschool Children’s Robotics Knowledge. *Educational Designer,* 4(15). ISSN 1759-1325. Retrieved from: <http://www.educationaldesigner.org/ed/volume4/issue15/article60/>
2. Bers, M. U., Govind M., **Relkin E**. (2021). Coding as another language: Computational thinking, robotics and literacy in first and second grade. *ACM and the Robin Hood Learning + Technology Fund, New York, NY*. Retrieved from <https://www.acm.org/binaries/content/assets/education/ct_prek-5_web.pdf>
3. **Relkin, E**.,de Ruiter, L., & Bers, M.U. (2021). Learning to code and the acquisition of computational thinking by young children. *Computers & Education.* <https://doi.org/10.1016/j.compedu.2021.104222>
4. **Relkin, E**.,de Ruiter, L., Bers, M.U. (2020). *TechCheck*: Development and validation of an unplugged assessment of computational thinking in early childhood education. *Journal of Science Education and Technology. 29, 482–498.* <https://doi.org/10.1007/s10956-020-09831-x>
5. **Relkin, E**., Govind, M., Tsiang, J., & Bers, M. U. (2020). How parents support children’s informal learning experiences with robots. *Journal of Research in STEM Ed*, 6(1), 39 -51. 6(1), 39-51. Retrieved from <https://j-stem.net/index.php/jstem/article/view/87>
6. Govind, M., **Relkin, E**., Bers, M. U. (2020). Families that code together learn together: The impact of collaborative family programming with ScratchJr. *Visitor Studies.* 23(1), 46-65. <https://doi.org/10.1080/10645578.2020.1732184>
7. Albo-Canals, J., Barco, A., **Relkin, E**., Hannon, D., Heerink, M., Heinemann, M., Leidl, K., & Bers, M. U. (2018). A pilot study of the KIBO robot in children with severe ASD. *International Journal of Social Robotics. 10,**371–383.* <https://doi.org/10.1007/s12369-018-0479-2>

**PEER-REVIEWED CONFERENCE PAPERS AND ABSTRACTS**

1. **Relkin, E**.(Accepted 2022). The Effects of Three Coding Educational Interventions on Young Children’s Computational Thinking Skills*. Annual Meeting of the American Educational Research Association (AERA).*
2. **Relkin, E**.(2022). Cross-grade comparison of computational thinking in young children using normalized unplugged assessment scores. *SIGCSE '22: Proceedings of the 53rd ACM Technical Symposium on Computing Science Education.* <https://doi.org/10.1145/3478432.3499214>
3. Iseli, M., Feng, T., **Relkin, E.** (2022).Extracting Game-Based Indicators Using Distance to Optimal Performance. *Annual Meeting of the American Educational Research Association (AERA).*
4. **Relkin, E**., & Bers, M. U. (2021). *TechCheck-K:* A measure of computational thinking for kindergarten children.  In *2021* *IEEE Global Engineering Education Conference (EDUCON).*IEEE. <https://doi.org/10.1109/EDUCON46332.2021.9453926>
5. **Relkin, E**.,& Bers, M.U. (2021). Factors influencing learning of computational thinking skills in young children. *Virtual Annual Meeting of the American Educational Research Association (AERA).*
6. Iseli, M. R., Feng, T., **Relkin, E**., & Chung, G.  K. W. K (2021). Evaluation of code manipulation in coding games. *Virtual Annual Meeting of the American Educational Research Association (AERA).*
7. **Relkin, E**., & Bers, M. U. (2020). Exploring the relationship among coding, computation thinking, and problem solving in early elementary school students [Symposium]. *Annual Meeting of the American Educational Research Association (AERA)*, San Francisco, CA.

**BOOK CHAPTERS AND MONOGRAPHS**

1. **Relkin, E.** (2022) The Development of Computational Thinking Skills in Young Children (Doctoral dissertation). *ProQuest Dissertations and Theses Database.* (UMI No. 2725323425). <https://www.proquest.com/dissertations-theses/development-computational-thinking-skills-young/docview/2725323425/se-2>
2. **Relkin, E**., & Strawhacker, A. (2021). Unplugged learning: Recognizing computational thinking in everyday life. In M. U. Bers (Ed.) *Teaching Computational Thinking and Coding to Young Children* (pp. 41-62). IGI Global. <https://doi.org/10.4018/978-1-7998-7308-2.ch003>
3. **Relkin, E**. (2021). Creation of an unplugged computational thinking assessment for young children. In M. U. Bers (Ed.) *Teaching Computational Thinking and Coding to Young Children* (pp. 250-264). IGI Global. [https://doi.org/10.4018/978-1-7998-7308-2.ch013](https://www.igi-global.com/gateway/book/262496)
4. Iseli, M. R., **Relkin, E**.,Zhang, Y., Chung, G. K.W. K., Shochet, J., Strachman, A., Hosford, G., (In Press). Defining computational thinking using semantic analysis of prior definitions. *CRESST Report.*
5. **Relkin, E**., Bers, M. U. (2019). Designing an assessment of computational thinking abilities for young children.  In *STEM for Early Childhood Learners: How Science, Technology, Engineering and Mathematics Strengthen Learning*, L.E. Cohen & S. Waite-Stupiansky (Eds.). NY: Routledge. 1, 85-98. <https://doi.org/10.4324/9780429453755-5>
6. **Relkin, E.** (2018) Assessing young children’s computational thinking abilities (Master’s thesis). *ProQuest Dissertations and Theses Database.* (UMI No. 10813994). <http://hdl.handle.net/10427/015529>

**Presentations and Workshops**

1. Govind, M., **Relkin, E.,** Strawhacker A., Hunt L. (2021). Teaching computational thinking and coding to young children webinar. *Kinderlab Robotics.* Virtual Panel.
2. Tianying, F., Iseli, M. R., **Relkin, E.,** Chung, G. K.W. K., Shochet, J., Strachman, A., Hosford, G. (2021). Evaluation of code manipulation in coding games. *The Connected Learning Summit,* Boston, MA.
3. **Relkin, E**. (2020). Computational thinking assessment in the remote learning era. *ISTE Early Learning Playground.* Virtual.
4. **Relkin, E**., & Govind, M. (2019). Robotics for young children: Ask KIBO.  *Military Child Education Coalition National Training Seminar*. Washington, D.C. Workshop.
5. **Relkin, E**., & Govind, M. (2018, 2019, 2020). KIBO robotics and the coding as literacy (CAL) approach. *Norfolk Public Schools Teacher Training*, Norfolk, VA. Workshop.
6. **Relkin, E.** (2018). Assessments for the coding as literacy (CAL) program. *Norfolk Public Schools Assessment Team Training*, Norfolk, VA. Workshop.
7. McDonald, S.,Pokress, S., **Relkin, E**., Cullen, B. (2018). Computational thinking: Coding and robotics. *Learn Launch Across Boundaries Conference,* Boston, MA. Panel.
8. Lowe A., **Relkin, E**., Taha, K., Liu-Constant Y., Papayannis, G. (2018). Influence of Reggio on Innovative School Movement. *Wonder of Learning Conference*, Boston, MA. Panel.
9. **Relkin, E**., Viezel, M., Govind, M., Futterman, E. (2018). Programming in early childhood using ScratchJr and KIBO robotics*. STEM Ed Conference*, Medford, MA. Workshop.
10. **Relkin, E**., Viezel, M., Futterman, E. (2018). Programming in early childhood using ScratchJr and KIBO robotics. *STEM Ed Conference*, Medford, MA. Workshop.
11. Strawhacker, A., **Relkin, E.,** Viezel, M., Govind M. (2018). Learn about ScratchJr and KIBO robotics, *DevTech Research Group Summer Professional Development*. Workshop.

**AWARDS AND HONORS**

First Place at ACM/SIGCSE Graduate Student Research Competition (2022)

Eliot Pearson CIGP Child Development in the 21st Century Award (2019)

Tufts University Graduate Student Travel Award (2019)

**Skills**

**Computer:** R, SPSS, Qualtrics, REDcap, various survey and analytic tools

**Technology for Children:** KIBO Robotics, ScratchJr, codeSpark, Scratch, other educational technologies

**Languages:** English, Conversational Japanese