Alex R. Lishinski Curriculum Vitae

EDUCATION

Michigan State University, East Lansing, MI

Ph.D., Educational Psychology and Educational Technology, December 2017 *Concentration*: Measurement and Quantitative Methods

• Advisor: Aman Yadav, Ph.D

Texas A&M University, College Station, TX

M.A., Philosophy, May 2013

Michigan State University, East Lansing, MI

B.A., Philosophy and German (Dual Degree), December 2010

Professional Experience

Research Scientist

February 2022 to Present

University of Tennessee - Knoxville

Postdoctoral Researcher October 2019 to February 2022

University of Tennessee - Knoxville

Researcher August 2017 to November 2018

American Institutes for Research

Research Assistant January 2015 to August 2017

MSU Honors College

Supervisor: Justin Micomonaco

Research Assistant September 2013 to May 2015

MSU College of Education

PEER REVIEWED PUBLICATIONS

Note: Unlike most of academia, premiere conferences in Computing Education are selective venues for archival research. These conferences exceed many journals in their selectivity, visibility, and impact.

- 1. Lishinski, A., Narvaiz, S., and Rosenberg, J. M. (2022). Self-efficacy, Interest, and Belongingness URM Students' Momentary Experiences in CS1. Proceedings of the 2022 ACM Conference on International Computing Education Research (ICER '22).
- Aguilar, S. J., Rosenberg, J. M., Greenhalgh, S. P., Fütterer, T., Lishinski, A., and Fischer, C. (2021). A different experience in a different moment? Teachers' social media use before and during the COVID-19 pandemic. AERA Open, 7.
- 3. Lishinski, A., and Rosenberg, J., "All the Pieces Matter: The Relationship of Momentary Self-efficacy and Affective Experiences with CS1 Achievement and Interest in Computing" Proceedings of the 2021 ACM Conference on International Computing Education Research (ICER '21).
- 4. **Lishinski, A.**, Yadav, A., "Self-evaluation Interventions: Impact on Self-efficacy and Performance in Introductory Programming" *ACM Transactions on Computing Education (TOCE)* (June 2021) 21(3).

- 5. Yadav, A., Lishinski, A., Sands, P. "Self-efficacy Profiles for Computer Science Teachers." Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE '21).
- 6. Lishinski, A., Yadav, A., and Enbody, R., "Students' Emotional Reactions to Programming Projects in Introduction to Programming: Measurement Approach and Influence on Learning Outcomes." Proceedings of the 2017 ACM Conference on International Computing Education Research (ICER '17)
- 7. Lishinski, A., Good, J., Sands, P., and Yadav, A., "Computer Science Education Research: A literature review of theoretical grounding and methodological rigor." Proceedings of the eleventh annual International Conference on International Computing Education Research (ICER '16).
- 8. Lishinski, A., Yadav, A., Good, J., and Enbody, R., "Learning to program: A study of students' motivation, goals, self-efficacy, and gender differences in CS1." Proceedings of the eleventh annual International Conference on International Computing Education Research (ICER '16).
- Lishinski, A., "Cognitive, Affective, and Dispositional Components of Learning Programming" Doctoral Consortium: The eleventh annual International Conference on International Computing Education Research (ICER '16).
- 10. **Lishinski, A.**, Yadav, A., and Enbody, R., "Influence of problem solving abilities on students' performance on different assessment tasks in CS1." Proceedings of the 47th ACM Technical Symposium on Computer Science Education (SIGCSE '16).

BOOK CHAPTERS

- Lishinski, A., Yadav, A., "Motivation, Attitudes, and Dispositions." (2019)
 In S. Fincher & A. Robins, eds. Handbook of Computing Education Research, Cambridge University Press.
- 2. Yadav, A., Sands, P., Good, J., and Lishinski, A., "Computer science and computational thinking in the curriculum: Research and practice." (2018) In. J. Voogt, G. Knezek, R Christensen, and K-W Lai (Eds.). *Handbook of Information Technology in Primary and Secondary Education*, Springer International Handbooks of Education. Springer, Cham.

PEER REVIEWED CONFERENCE PRESENTATIONS

- Lishinski, A., Rosenberg, J. M., Sultana, O., Mann, M., & Dunn, J. (2021, April). A text messaging-based experience sampling method study of students' interest in introductory computer science. Presentation at the American Educational Research Association Annual Meeting.
- Lishinski, A., Rosenberg, J. M, Mann, M., Sultana, O., and Dunn, J. (2021, March). "How CS1 Students Experienced COVID-19 In the Moment: Using An Experience Sampling Approach to Understand the Transition to Emergency Remote Instruction" Poster to be presented at the Special Interest Group on Computer Science Education Technical Sympsosium (SIGCSE 2021).
- 3. Mann, M., Bui, H., Gibbons, B., **Lishinski, A.**, Dyer, E., Rosenberg, J. M, Longnecker, J. (2021, March). "'Not my subject'?: A survey of teachers regarding theimplementation of new K-8 computing education standards" Poster to be presented at the Special Interest Group on Computer Science Education Technical Sympsosium (SIGCSE 2021).

- 4. Lishinski, A., and Rosenberg, J. M. (2020, March). "Accruing Interest: What experiences contribute to students developing a sustained interest in computer science over time?" Lightning talk at the Special Interest Group on Computer Science Education Technical Sympsosium, Portland, OR. YouTube recording: https://www.youtube.com/watch?v=ZHTLejxTYbs (SIGCSE 2020 Conference cancelled)
- 5. Rosenberg, J. M., and **Lishinski, A.** (2020, March). "Variable interest rate: What experiences explain differences in interest in computer science among students?" Birds of a feather presentation at the Special Interest Group on Computer Science Education Technical Sympsosium, Portland, OR. (SIGCSE 2020 Conference cancelled)
- 6. Lishinski, A., and Rosenberg, J. M. (January, 2020). Measuring what matters inthe-moment: An experience sampling approach to understanding the development of interest in computer science. Presentation at the 14th Annual Tennessee STEM Education Research Conference, Cookeville, TN.
- 7. Rosenberg, J. M., Hodge, L., Aydeniz, M., Schmidt, A. Lishinski, A., Rich, K., Longnecker, J., Mann. M., and Sadovnik, A. (January, 2020). A survey of teachers and administrators regarding the implementation of new K-8 computing education standards in Tennessee. Presentation at the 14th Annual Tennessee STEM Education Research Conference, Cookeville, TN.
- 8. Lishinski, A., Yadav, A., and Enbody, R., "Students' Emotional Reactions to Programming Projects in Introduction to Programming: Measurement Approach and Influence on Learning Outcomes." Paper presented the 2017 ACM Conference on International Computing Education Research (ICER '17)
- 9. Lishinski, A., Good, J., Sands, P., and Yadav, A., "Computer Science Education Research: A literature review of theoretical grounding and methodological rigor." Paper presented at the eleventh annual International Conference on International Computing Education Research (ICER '16)
- 10. Lishinski, A., Yadav, A., Good, J., and Enbody, R., "Learning to program: A study of students' motivation, goals, self-efficacy, and gender differences in CS1." Paper presented at the eleventh annual International Conference on International Computing Education Research (ICER '16)
- 11. Good, J., Yadav, A., and **Lishinski, A.**, "Measuring Computational Thinking Preconceptions: Analysis of a Survey for Pre-Service Teacher's Conceptions of Computational Thinking." 27th annual conference of the Society for Information Technology and Teacher Education (SITE 2016)
- 12. **Lishinski, A.**, Yadav, A., and Enbody, R., "Influence of problem solving abilities students' performance on different assessment tasks in CS1." Paper presented at the 47th ACM Technical Symposium on Computer Science Education SIGCSE '16
- 13. Micomonaco, J., Jackson-Elmoore, Cynthia and **Lishinski**, **A.** (2015, May) "Comparing the College Performance of Honors Students Admitted Via Two Different Mechanisms." Paper presented at the Honors Education at Research Universities (HERU) Conference, Corvallis, Oregon.
- 14. Seals, C. and **Lishinski**, **A.** (2015, March). "Does the Program Work?" In P. Mishra (Chair), "Enhancing Urban Teachers STEM and Leadership Capacities: A preliminary report on a unique private-public-public partnership." Symposium conducted at the 2015 meeting of the Society for Information Technology and Teacher Education (SITE), Las Vegas, NV.

TEACHING EXPERIENCE

An Introduction to Data Science Methods in Education

Spring 2021

University of Tennessee - Knoxville

Teaching Assistant - Introduction to Logic

August 2011 to May 2013

Texas A&M Philosophy Department

Test Prep Instructor - GRE

June 2013 to June 2014

Kaplan

Test Prep Instructor - GMAT

August 2011 to October 2011

Educational Testing Consultants

Grants

1. 2019-2021, Senior Personnel, CS for Appalachia: A research-practice partnership for integrating computer science into East Tennessee schools(\$252,453; PI: Lynn Hodge, University of Tennessee, Knoxville). NSF. (NSF Grant No. 1923509)

AWARDS

- 2016 Chairs' Award for Best Paper: ACM Conference on International Computing Education Research (ICER)
- Graduate Assistantship: Michigan State University Honors College 2015-2017
- Graduate Assistantship: Michigan State University College of Education 2013-2015
- 2014-2015 Language Mentor Fellowship MSU RCAH (\$8000, Declined)
- Teaching Assistantship (with GAT stipend): Texas A&M University 2011-2013
- DAAD (German Academic Exchange Service) Undergraduate Scholarship: 2009-2010

Reviewer

Computer Science Education, ACM Transactions on Computer Science Education (TOCE), ACM Technical Symposium on Computer Science Education (SIGCSE), ACM International Computing Education Research Conference (ICER)

Competitive Research Training

NC State Friday Institute for Educational Innovation

- Learning Analytics and STEM Education Research (LASER) Institute (July 2022)
- Northwestern University Institute for Policy Research
- Summer Research Training Institute on Cluster Randomized Trials (August 2018)
 Design and Analysis of Practical Quasi-Experiments for Use in Education Workshop (August 2016)

OTHER RESEARCH Statistical Horizons

Training

• Missing Data Seminar with Paul Allison (May 2020)

Computer Competencies

Computer Programming:

Statistics

AND LANGUAGES

• Advanced Proficiency with R and Python for data analysis and scripting

Languages:

 German

• Very good reading, writing, and speaking knowledge

R Packages

lavaanPlot

- Package creates visualizations of structural equation models created with the lavaan package
- Primary Author

clustRcompaR

- Package implements clustering algorithm for text data
- Co-author

AutoModel

- Package automates the process of hierarchical multiple linear regression with assumptions checking and model comparisons
- Primary Author

EdSurvey

- Package implements statistical methods for large scale survey data using complex survey sampling design
- Wrote code to implement multivariate regression analysis and wald tests
- Contributing Author

PYTHON APPLICATIONS

Short Message Survey

- An open-source, python-based web application for the experience sampling method via text message.
- Primary Author

RESEARCH GROUPS

Making Data Science Count

September 2019 to Present

University of Tennessee - Knoxville

Computer Science and Engineering

Education Research Group

September 2014 to August 2017

Michigan State University

References

Dr Joshua Rosenberg

- Assistant Professor of STEM Education/Science University of Tennessee Knoxville
- Address: 1122 Volunteer Blvd, Knoxville, TN 37996
- Email: jmrosenberg@utk.edu
- Phone: 865-974-5973

Dr Aman Yadav

- Professor, Department of Counseling, Educational Psychology and Special Education
 Michigan State University
- Address: 620 Farm Lane, East Lansing, MI 48824
- Email: ayadav@msu.eduPhone: 517-884-2094

Dr Justin Micomonaco

- Assistant Dean, Honors College Michigan State University
- Address: 468 E. Circle Drive, East Lansing, MI 48824
- Email: micomona@msu.edu
- \bullet Phone: 517-355-2326

Dr Jon Good

- Research, Evaluation, and Assessment Consultant Oakland Schools
- Address: 2111 Pontiac Lake Road, Waterford, MI 48328
- Email: jonathon.good@oakland.k12.mi.us
- Phone: 216-287-0219