Andrew A. Anderson

Phone: (281) 658-6174 | email: anderan2@oregonstate.edu

INTEREST

PhD Student interested in ways diverse people with diverse cognitive styles can partner with artificial intelligence.

EXPERIENCE

Graduate Research Assistant   August 2017 - Present
Oregon State University; Corvallis, OR;
- Designed, analyzed (mixed-methods), and published eXplainable AI (XAI) research
- Collaborated with Microsoft Research (MSR), facilitated by Mihaela Vorvoreanu

Microsoft Research (MSR) Intern   March 2020 – June 2020
Redmond, WA;
- Worked with the Human-Computer Interaction (HCI) & Artificial Intelligence (AI) team (mentors: Mihaela Vorvoreanu & Saleema Amershi)
- Wrote design patterns for human-AI interaction, based on guidelines for human-AI interaction

Microsoft Research (MSR) Intern   June 2020 – September 2020
New York, NY;
- Worked with the Fairness, Accountability, Transparency, and Ethics (FATE) team
- Explored data scientists' needs and pain points for exploring fairness issues in AI
- Mentored by Jenn Wortman Vaughan, Hanna Wallach, and Miro Dudik

EDUCATION

Oregon State University, Corvallis, OR;
PhD, Computer Science (HCI of AI). EXPECTED GRADUATION June 2024
- Relevant Courses: Machine Learning, Deep Learning, Field Studies in HCI/SE, Inclusive Design, Design & Analysis of Planned Experiments, Methods of Data Analysis 1 - 3, Sampling Methods

Major Advisor (HCI):   Dr. Margaret Burnett
Minor Advisor (Statistics):   Dr. Katherine McLaughlin
Minor Advisor (Artificial Intelligence):   Dr. Alan Fern

Oregon State University, Corvallis, OR; *MS, Computer Science. December 2019*

Sam Houston State University, Huntsville, TX; *BS, Mathematics & Computer Science), 2017*

FULLY REFEREED PUBLICATIONS

Andrew Anderson, Jonathan Dodge, Amrita Sadarangani, Zoe Juozapaitis, Evan Newman, Jed Irvine, Souti Chattopadhyay, Matthew Olson, Alan Fern, Margaret Burnett; Mental Models of Mere Mortals with Explanations of Reinforcement Learning; ACM Transactions on Interactive Intelligent Systems (TiiS), 10(2), 1-37, May 2020.

Andrew Anderson, Jonathan Dodge, Amrita Sadarangani, Zoe Juozapaitis, Evan Newman, Jed Irvine, Souti Chattopadhyay, Alan Fern, Margaret Burnett; Explaining Reinforcement Learning to Mere Mortals: An Empirical Study; *International Joint Conference on Artificial Intelligence (IJCAI) '19;* August, 2019; https://www.ijcai.org/proceedings/2019/0184.pdf

Jonathan Dodge, Andrew Anderson, Matthew Olson, Rupika Dikkala, Margaret Burnett; How Do People Rank Multiple Mutant Agents? *ACM 27th International Conference on Intelligent User Interfaces (IUI '22).* pp. 191 – 211.

Jonathan Dodge, Roli Khanna, Jed Irvine, Kin-Ho Lam, Theresa Mai, Zhengxian Lin, Nicholas Kiddle, Evan Newman, Andrew Anderson, Sai Raja, Caleb Matthews, Chrisopher Perdriau, Margaret Burnett, Alan Fern; After-Action Review for AI (AAR/AI); *ACM Transactions on Interactive Intelligent Systems.* 11(1), 1 – 46.

Roli Khanna, Jonathan Dodge, Andrew Anderson, Rupika Dikkala, Jed Irvine, Zeyad Shureih, Kin-Ho Lam, Caleb Matthews, Munsuk Kahng, Alan Fern, Margaret Burnett; Finding AI's Faults with AAR/AI: An Empirical Study; *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 12(1), 1 – 33.

Sean Penney, Jonathan Dodge, Andrew Anderson, Claudia Hilderbrand, Logan Simpson, Margaret Burnett; The Shoutcasters, the Game Enthusiasts, and the AI: Foraging for Explanations of Real-Time Strategy Players; *ACM Transactions on Interactive Intelligent Systems (TiiS)*. 11(1), 1 – 46.

Jonathan Dodge, Sean Penney, Claudia Hilderbrand, Andrew Anderson, Margaret Burnett; How the Experts Do It: Assessing and Explaining Agent Behaviors in Real-Time Strategy Games; *ACM Conference on Human Factors in Computing Systems (CHI);* April, 2018.

Sean Penney, Jonathan Dodge, Claudia Hilderbrand, Andrew Anderson, Logan Simpson, Margaret Burnett; Toward Foraging for Understanding of StarCraft Agents: An Empirical Study; *ACM Conference on Intelligent User Interfaces (IUI);* March, 2018.

OTHER PUBLICATIONS

Jonathan Dodge, Andrew Anderson, Roli Khanna, Jed Irvine, Rupika Dikkala, Kin-Ho Lam, Delyar Tabatabai, Anita Ruangrotsakun, Zeyad Shureih, Minsuk Kahng, Alan Fern, Margaret Burnett; From "no clear winner" to an effective Explainable Artificial Intelligence process: An empirical journey. *Applied AI Letters,* 1 – 10.

Andrew Anderson; Mental Models of Mere Mortals with Explanations of Reinforcement Learning; *Master of Science Thesis;* https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/5h73q3181

Christopher Mendez, Andrew Anderson, Brijesh Bhuva, Margaret Burnett; The GenderMag Recorder's Assistant; *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC) '18*

Jonathan Dodge, Sean Penney, Andrew Anderson, Margaret Burnett; What Should Be in an XAI Explanation? What IFT Reveals; *IUI Workshop on Explainable Smart Systems (ExSS) '18;* March, 2018;

Rupika Dikkala, Roli Khanna, Caleb Matthews, Jonathan Dodge, Sai Raja, Catherine Hu, Jed Irvine, Zeyad Shureih, Kin-Ho Lam, Andrew Anderson, Minsuk Kahng, Alan Fern, Margaret Burnett; Doing COVID-era Controlled Studies with Humans: Tales from the Trenches; *ACM/IEEE Cooperative and Human Aspects of Software Engineering (CHASE) '21;* May, 2021;

HONORS & AWARDS

Pi Mu Epsilon (Mathematics Honors) inductee (Fall 2015)
Sam Houston State University Computer Science Department Scholarship recipient (Fall 2016)

RELEVANT SKILLS

Research: Gender Inclusiveness, Experimental Design, Qualitative Analysis, Quantitative Analysis
Programming: Python, R, Java, C, HTML, SQL, CSS,