

Eliana “Eli” Feasley

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Research Statement

I'm a Phd student at UT Austin with interests in intelligent tutoring systems and massive open online education. In particular I want to look at how match students with content based on aptitudes and preexisting understanding to target education for the greatest gains in knowledge.

As educational data becomes massive, it's time to find out new things about how people learn and replace frustrating, redundant or dated experiences with those that are optimized and free. I want to formulate questions about education as well-defined machine learning challenges, and use AI techniques to empirically evaluate cognitive science and pedagogically based hypotheses about learning and education.

I see this challenge as having two parts - first, being able to accurately identify trends and patterns in learning, and second, using evidence-based design and A/B testing to create more powerful learning experiences using the insights gained from the first part. I want to work in collaboration with experts in pedagogy to generate and evaluate hypotheses about how students worldwide learn, so everyone can have access to excellent education.

Education

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| 2011–Present | Pursuing PhD in Computer Science, University of Texas at Austin GPA 3.85 Graduate Coursework: <i>Graphical Models, Numerical Linear Algebra,</i> <i>Artificial Intelligence, Natural Language Processing,</i> <i>Sensation and Perception, and Mathematical Logic</i> |
| 2009–2011 | BS in Computer Science, University of Maryland, Baltimore County GPA 3.94 |

Publications

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| 2012 | W. Tansey, E. Feasley, and R. Miikkulainen. Accelerating evolution via egalitarian social learning. In <i>Proceedings of the fourteenth international conference on Genetic and evolutionary computation conference</i> , pages 919–926. ACM, 2012 |
| 2012 | R. Miikkulainen, E. Feasley, L. Johnson, I. Karpov, P. Rajagopalan, A. Rawal, and W. Tansey. Multiagent learning through neuroevolution. <i>Advances in Computational Intelligence</i> , pages 24–46, 2012 |
| 2011 | M. desJardins, A. Ciavolino, R. Deloatch, E. Feasley, et al. Playing to program: Towards an intelligent programming tutor for rur-ple. In <i>Second AAAI Symposium on Educational Advances in Artificial Intelligence</i> , 2011 |

Work Experience

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| Currently | Research Assistant, UT Austin In the Neural Networks group led by Risto Miikkulainen Researching communication between agents in multiagent systems in collaboration with biologists studying hyenas in the wild. Co-wrote grant that earned funding from the NSF's BEACON Center for the Study of Evolution in Action. |
| 2011 | Teaching Assistant, Computer Science Department, UMBC Participated in developing course materials for hundreds of students, led multiple lab sections with hands-on coding. |
| 2011 | Research Assistant, UMBC In the Multi-Agent Planning and Learning Lab let by Marie desJardins Developed cognitive models of student understanding, designed and ran human subjects experiments, collaborated in developing a dynamic Python tutoring environment. |
| 2010-2011 | Computer Science Tutor, Computer Science Department, UMBC Guided students with severe challenges through computer science courses, designed simple tactile learning experiences. |
| 2009 | Community Organizer, Unite HERE! Volunteered to organize hotel workers for higher wages and safer working conditions. Supported low income workers in developing a Human Rights Zone in Baltimore's Inner Harbor |

Leadership and Miscellanea

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| Organizer, Forum for Artificial Intelligence at UT |
| Founding member of Broader Impact Group in Artificial Intelligence |
| Graduate Representative for Computer Science |
| Best Undergraduate Research Award, UMBC |
| Hiked from Georgia to Virginia, and lived outside for over six months |
| Other projects are located on my website: cs.utexas.edu/~elie |