Lux Miranda

she/they

This abridged CV is current as of 1 November 2022
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Education

2022-2027 (expected) **PhD in Computer Science**
- ✧ Uppsala University, *Sweden, European Union*
- ✧ Defense expected May 2027

2020-2022 **Master of Science in Industrial Engineering**
- ✧ University of Central Florida (UCF), *Orlando, Florida, USA*
- ✧ Honorary 10,000th master's degree conferred by the college
- ✧ Thesis: *Humans in algorithms, algorithms in humans: Understanding cooperation and creating social AI with causal generative models*

2016-2020 **Bachelor of Science with University Honors, double-major in Computational Mathematics and Computer Science, minor in Anthropology, *Cum Laude***
- ✧ Utah State University (USU) , *Logan, Utah, USA*
- ✧ Honors thesis: *Computationally revealing recurrent social formations and their evolutionary trajectories*

Publications

2022 (Accepted) Freeman, J., Baggio, J., **Miranda, L.**, & Anderies, J.M. (2022). Social infrastructure moderates the energy use of polities. Accepted / in revision, *Cross-Cultural Research*.

2022 (Invited; In press) **Miranda, L.**, Garibay O.O., & Baggio, J. (2022). Evolutionary model discovery of human behavioral factors driving decision-making in an irrigation experiment. Invited and in press for a special issue of the *Journal of Artificial Societies and Social Sciences*.

2022 *Invited manuscript* **Miranda, L.** & Garibay O.O. (2022). Approaching (super)human intent recognition in stag hunt with the Naïve Utility Calculus generative model. *Computational and Mathematical Organization Theory*. https://doi.org/10.1007/s10588-022-09367-y

2022 **Miranda, L.** (2022). Humans in Algorithms, Algorithms in Humans: Understanding Cooperation and Creating Social AI with Causal Generative Models. *UCF Electronic Theses and Dissertations*. https://stars.library.ucf.edu/etd2020/1054

2022 Bird, D., **Miranda, L.**, Vander Linden, M. et al. (2022). p3k14c, a synthetic global database of archaeological radiocarbon dates. *Nature Scientific Data*. 10.1038/s41597-022-01118-7

2021 Awarded *Best Human-Autonomy Teaming Paper*

Miranda, L. & Garibay O.O. (2021). Multi-agent Naïve Utility Calculus: Intent Recognition in the Stag-Hunt Game. Social, Cultural, and Behavioral Modeling. SBP-BRiMS 2021. Lecture Notes in Computer Science, vol 12720. 10.1007/978-3-030-80387 232

2020 **Miranda, L.** & Freeman, J. (2020). The two types of society: Computationally revealing recurrent social formations and their evolutionary trajectories. *PLoS One* 10.1371/journal.pone.0232609

Research Experience

Summer 2022 **PIBBSS Summer Research Fellow**. Awarded the 9,000 USD Principles of Intelligent Behavior in Biological and Social Systems (PIBBSS) summer research fellowship to conduct research on human-aligned AI systems .

August 2020 - May 2022 (4 semesters) **Graduate Research Assistant.** *University of Central Florida Human-Centered Artificial Intelligence Research Laboratory & Complex Adaptive Systems Laboratory.* Contributed to the publication of three journal articles, one conference paper, and my master's thesis.

August 2019 - August 2020 (1 year) **Undergraduate Research Assistant.** *Utah State University Anthropology Program.* As part of an international archaeological working group known as PEOPLE 3000 , I helped to create and manage a new radiocarbon database larger and more complete than any other. I also worked to program and test an online social experiment studying cooperation in a common-pool resource management scenario.

Summer 2019 **Peak Summer Research Fellow.** *Utah State University.* One of ten recipients awarded the 4,000 USD Peak Summer Research Fellowship for highly-engaged undergraduate researchers to conduct work on a proposed project over the summer. The research conducted under this fellowship produced my first publication, listed above.

Summer 2018 **NASA Space Grant Consortium Fellow.** Awarded a 1,600 USD NASA space grant fellowship to continue work on a CubeSat mission as the software team leader for the USU Get Away Special Microgravity Research team. Managed a team of ten other programmers. Wrote software for a prototype platform that successfully served over a dozen high-altitude balloon flights. The project (GASPACS) was the world's first CubeSat developed entirely by undergraduate students. It successfully served its mission after being launched to the International Space Station as part of the SpaceX CRS-24 mission and deployed into low Earth orbit on 26 January 2022.