

# Katherine Mayo

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## Research Interests

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Computational Economics, Game Theory, Multiagent Systems, Applications of Machine Learning

## Education

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### University of Michigan Ann Arbor

PHD IN COMPUTER SCIENCE AND ENGINEERING

*Ann Arbor, MI*

*Sept 2019-Present*

- Advisor: Michael P. Wellman

### University of Massachusetts Amherst

BS COMPUTER SCIENCE, BA ECONOMICS

*Amherst, MA*

*Sept 2015 - Feb 2019*

- Minor: Chinese
- Cum Laude with Commonwealth Honors College, Multidisciplinary Honors
- Honors Thesis advised by Brendan O'Connor and Arindrajit Dube: Predicting Unemployment Rates Using Google Trends data

## Professional Experience

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### University of Michigan, EECS - CSE

GRADUATE STUDENT RESEARCH ASSISTANT

*Ann Arbor, MI*

*Sept 2019 - Present*

- Undergraduate Research Advising:
  - Shaily Fozdar (Aug 2020-Present)

### Michigan Medicine, Department of Radiation Oncology

RESEARCH ASSISTANT

*Ann Arbor, MI/Remote*

*Feb 2019 - Aug 2019*

- Analyzed factors relating patient data to emergency room visits
- Applied various machine learning models to the data set for predicting cancer patient outcomes

### Systems & Technology Research

INTELLIGENCE TOOLS AND ANALYTICS INTERN

*Woburn, MA*

*Jun 2018 - Aug 2018*

- Analyzed temporal patterns in social media usage to identify groups of interest
- Applied machine learning models to data from groups of interest for predicting La Liga soccer matches

### University of Massachusetts, Department of Economics

RESEARCH ASSISTANT

*Amherst, MA*

*Oct 2016 - Dec 2017*

- Created a data set from arXiv.org meta-data of authors and papers
- Catalogued accepted papers in conference proceedings and corresponding papers submitted to arXiv

### Michigan Medicine, Department of Radiation Oncology

RESEARCH ASSISTANT

*Ann Arbor, MI*

*May 2017 - Aug 2017*

- Integrated a non-linear optimizer with the pre-existing Varian Eclipse Plug-In for optimizing cancer treatment plans

### Michigan Medicine, Department of Radiation Oncology

RESEARCH ASSISTANT

*Ann Arbor, MI*

*May 2016 - Aug 2016*

- Populated an SQL database with cancer patient data
- Analyzed data using R and C# for studying dose-volume histograms for research in automating cancer treatment

## Conference Publications

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1. **Katherine Mayo** and Michael P. Wellman. 2021. A Strategic Analysis of Portfolio Compression: Extended Abstract. In *Proc. of the 20th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2021)*, Online, May 3-7, 2021, IFAAMAS, 2 pages.