

Markelle Kelly

COMPUTER SCIENCE PH.D. STUDENT

markellekelly.com • email: markellekelly@gmail.com • github: @markellekelly

Research Interests

I am interested in the development of tools for more interpretable, interactive, and accountable machine learning; my research centers on understanding and improving human-machine interaction.

Education

| | |
|--|-------------------|
| B.S. IN STATISTICS | 09/2016 – 06/2020 |
| California Polytechnic State University, San Luis Obispo • 4.0 GPA | |
| M.S. IN COMPUTER SCIENCE | 09/2020 – 03/2022 |
| University of California, Irvine • 4.0 GPA | |
| PH.D. IN COMPUTER SCIENCE | 09/2020 – Present |
| University of California, Irvine | |

Research Positions

| | |
|--|-------------------|
| SOFTWARE ENGINEER INTERN | 03/2018 – 06/2020 |
| Project Jupyter | |
| RESEARCH ASSISTANT | 03/2019 – 06/2020 |
| California Polytechnic State University, San Luis Obispo | |
| GRADUATE STUDENT RESEARCHER | 08/2020 – Present |
| University of California, Irvine | |

Publications

| | |
|--|----------------------|
| “Understanding Systematic Miscalibration in Machine Learning Classifiers” | |
| Markelle Kelly & Padhraic Smyth | TREX @ IEEE VIS 2022 |
| “Variable-based Calibration in Machine Learning Classifiers” | |
| Markelle Kelly & Padhraic Smyth | AAAI 2023 |
| “Mental Models of Machine Learning Agents” | |
| Markelle Kelly, Aakriti Kumar, Mark Steyvers & Padhraic Smyth | In Preparation |

Fellowships & Awards

| | |
|---|---------|
| HPI RESEARCH CENTER FELLOWSHIP | 07/2022 |
| HPI Research Center in Machine Learning and Data Science at UCI | |

| | |
|---|----------------|
| NOYCE FELLOWSHIP | <i>01/2022</i> |
| The Noyce Initiative at UCI | |
| SUMMER FELLOWSHIP | <i>06/2021</i> |
| UCI Steckler Center for Responsible, Ethical, and Accessible Technology | |
| ENHANCED EXCELLENCE FELLOWSHIP | <i>09/2020</i> |
| UCI Computer Science Department | |
| DEAN'S AWARD | <i>09/2020</i> |
| UCI Computer Science Department | |
| GRADUATE DEAN'S RECRUITMENT FELLOWSHIP | <i>09/2020</i> |
| UCI Computer Science Department | |
| CLASS OF 2020 ACADEMIC EXCELLENCE AWARD | <i>06/2020</i> |
| Cal Poly College of Science and Math | |
| BEST VISUALIZATION | <i>04/2019</i> |
| UCLA DataFest | |

Presentations

WORKSHOP TALK • “Understanding Systematic Miscalibration in ML Classifiers”

TREX at IEEE VIS 2022

INVITED TALK • “Building a Single-Document Jupyter Application with Lab Components”

BERKELEY INSTITUTE FOR DATA SCIENCE 2019

POSTER • “Let’s ToC about Tags”

JUPYTERCON 2018

Highlighted Open-Source Projects

CONTRIBUTOR • JupyterLab

Web-based environment for reproducible, interactive computing

CORE CONTRIBUTOR • JupyterLab celltags

JupyterLab extension for manipulating tags in cell metadata

CORE CONTRIBUTOR • JupyterLab Table of Contents

JupyterLab extension that generates interactive tables of contents for notebooks

Teaching & Academic Service

UCI TEACHING ASSISTANT • Project in AI *09/2022 – 12/2022*

REVIEWER • NeurIPS Datasets and Benchmarks Track *07/2022*

WORKSHOP ASSISTANT • MoISSI Data Analysis Workshop *07/2019*

CAL POLY TEACHING ASSISTANT • Honors Calculus III & IV *01/2018 – 06/2018*