

# Markelle Kelly

COMPUTER SCIENCE PH.D. STUDENT

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## 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.

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## 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

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## 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

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## 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 *Accepted to AAAI 2023*

“Mental Models of Machine Learning Agents”

Markelle Kelly, Aakriti Kumar, Mark Steyvers & Padhraic Smyth *In Preparation*

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## Fellowships & Awards

**HPI RESEARCH CENTER FELLOWSHIP** 07/2022

HPI Research Center in Machine Learning and Data Science at UCI

<b>NOYCE FELLOWSHIP</b> Irvine Initiative in AI, Law, and Society	<i>01/2022</i>
<b>CREATE FELLOWSHIP</b> UCI Steckler Center for Responsible, Ethical, and Accessible Technology	<i>06/2021</i>
<b>ENHANCED EXCELLENCE FELLOWSHIP</b> UCI Computer Science Department	<i>09/2020</i>
<b>DEAN'S AWARD</b> UCI Computer Science Department	<i>09/2020</i>
<b>GRADUATE DEAN'S RECRUITMENT FELLOWSHIP</b> UCI Computer Science Department	<i>09/2020</i>
<b>CLASS OF 2020 ACADEMIC EXCELLENCE AWARD</b> Cal Poly College of Science and Math	<i>06/2020</i>
<b>BEST VISUALIZATION</b> UCLA DataFest	<i>04/2019</i>

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## 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
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## 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
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## 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*