

Markelle Kelly

COMPUTER SCIENCE PH.D. CANDIDATE

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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.

Education

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

Experience

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

Publications

“Understanding Systematic Miscalibration in Machine Learning Classifiers”	
Markelle Kelly & Padhraic Smyth	<i>TREX @ IEEE VIS 2022</i>
“Variable-based Calibration in Machine Learning Classifiers”	
Markelle Kelly & Padhraic Smyth	<i>AAAI 2023</i>
“Capturing Humans’ Mental Models of AI: An Item Response Theory Approach”	
Markelle Kelly, Aakriti Kumar, Mark Steyvers & Padhraic Smyth	<i>FAccT 2023</i>

Fellowships & Awards

HPI RESEARCH CENTER FELLOWSHIP	<i>07/2022</i>
HPI Research Center in Machine Learning and Data Science at UCI	

NOYCE FELLOWSHIP	<i>01/2022</i>
Irvine Initiative in AI, Law, and Society	
CREATE 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

"Capturing Humans' Mental Models of AI: An Item Response Theory Approach"

FACCT 2023

"Understanding Systematic Miscalibration in Machine Learning Classifiers"

TREX Workshop, IEEE VIS 2022

"Building a Single-Document Jupyter Application with Lab Components"

Berkeley Institute for Data Science 2019

Teaching & Academic Service

UCI TEACHING ASSISTANT • Project in AI	<i>09/2022 – 12/2022</i>
REVIEWER • NeurIPS Datasets and Benchmarks Track	<i>07/2022</i>
WORKSHOP ASSISTANT • MolSSI Data Analysis Workshop	<i>07/2019</i>
CAL POLY TEACHING ASSISTANT • Honors Calculus III & IV	<i>01/2018 – 06/2018</i>