

# Rebecca Dorn

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## EDUCATION

### Pursuing Ph.D., Computer Science

Expected 2026

#### University of Southern California

GPA 3.5

Advisors: Kristina Lerman and Fred Morstatter

Academic Focus: Computational Social Science, Trans-Inclusive Machine Learning, Artificial Intelligence Ethics

### B.S., Computer Science

June 2020

#### University of California, Santa Cruz

GPA 3.47

Senior Thesis: Evaluating Bias in Face Verification

Relevant Coursework: Artificial Intelligence, Natural Language Processing, Applied Machine Learning, Linear Algebra

## RESEARCH EXPERIENCE

### Induced Bias for Topic-Related Data Mining

September 2022 to Current

University of Southern California, Los Angeles, CA

- Constructing method which over-exposes large language models to specific topics to improve topic-related tweet collection
- Reviewing relevant research to improve method and contextualize study within previous work

### Messaging and Emotions in Cisgender and Queer Online Communities

August 2022 to Current

University of Southern California, Information Science Institute, Marina del Rey, CA

- Formulating and implementing flexible k-bit pronoun schema to ensure inclusion of non-binary users in study
- Classifying >700,000 tweets according to moral foundation theory to understand how effective messaging varies by gender

### Gender and Prestige Bias in Coronavirus News (DARPA)

August 2021 to August 2022

University of Southern California, Information Science Institute, Marina del Rey, CA

- Extracted over 80,000 expert quotes from news articles using Named Entity Recognition (NER) and Dependency Parsing
- Analyzed gender representation of experts, finding that 1 man is quoted for every 3 women

### Expanding Healthcare Subsidies

December 2020

Families USA, Washington, DC

- Integrated multiple Census datasets to examine demographics of uninsured populations receiving unemployment benefits
- Communicated findings to health policy experts in video calls and e-mails to aid in developing policy research publication

### NYPD Fare Evasion Enforcement

December 2019

University of California, Santa Cruz, Santa Cruz, CA

- Fetched n-grams from Twitter grassroots campaign @unfairnyc to match tweets containing police sightings to subway stops
- Developed interactive map showing neighborhood demographics and NYPD fare evasion enforcement using Folium

## TEACHING EXPERIENCE

### Educational Director

January 2020 to August 2020

Habonim Dror Camp Moshava, Street, MD

- Led over 100 staff members in building social justice educational curriculum for campers entering grades 3 through 11
- Adapted programming and staff training to meet evolving needs during the Coronavirus pandemic

### Undergraduate Teaching Assistant, Ethics & Algorithms

Winter and Spring 2020

Basking Engineering at University of California, Santa Cruz, Santa Cruz, CA

- Designed assignments and rubrics for new Computer Science course, serving as sole undergraduate teaching assistant
- Surveyed research in fair machine learning spanning differential privacy, bias mitigation, and algorithm accountability

### Peer Tutor

Winter to Fall 2019

Learning Support Services at University of California, Santa Cruz, Santa Cruz, CA

- Planned and led tutoring sessions for Artificial Intelligence, Intro to Algorithm Analysis, and Algorithms/Abstract Data Types
- Coordinated with Multicultural Education Program (MEP) to better support students historically underrepresented in STEM.

## **UPCOMING PUBLICATIONS**

Dorn, R., Ma, Y., Morstatter, F. & Lerman, K. (2022, August). Auditing Gender and Prestige Bias in Coronavirus News. Under review for ACM Web Conference 2023, Austin, TX.

## **PRESENTATIONS**

Dorn, R. (2022, October). Studying Gender Equity with Data Science. Univeristy of Southern California Women in Science and Engineering (WiSE) STEM Bytes. Los Angeles, CA.

## **SERVICE**

**Member:** Women in Science and Engineering (2021 – present)

**Reviewer:** ACM WebSci (2022), JMIR (2022)

## **TECHNICAL SKILLS**

Programming (Proficient): Python, Slurm, pandas, matplotlib, scikit-learn, Git, LaTeX, bash

Programming (Intermediate): Hugging Face, TensorFlow, C, HTML, Flasks, Postgres