

# JENNIFER MICKEL

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## EDUCATION

The University of Texas at Austin	Bachelor of Science, <b>Computer Science Honors (Turing Scholars)</b>	May 2024
	Bachelor of Science and Arts, <b>Mathematics Honors (Polymathic Scholars)</b>	
	GPA: 3.75/4.00	

## PUBLICATIONS

- [1] I Solaiman\*, Z. Talat\*, W. Agnew, L. Ahmad, D. Baker, S. L. Blodgett, C. Chen, H. Daumé III, J. D. I. Duan, E. Evans, F. Friedrich, A. Ghosh, U. Gohar, S. Hooker, Y. Jernite, R. Kalluri, A. Lusoli, A. Leiding, M. Lin, X. Lin, S. Luccioni, **J. Mickel**, M. Mitchell, J. Newman, A. Ovalle, M. Png, S. Singh, A. Strait, L. Struppek, A. Subramonian. “Assessing the Social Impact of Generative AI Systems in Systems and Society” *To Appear in The Oxford University Press Handbook on Generative AI*. 2024. [\[pdf\]](#)
- [2] **J. Mickel**. “Racial/Ethnic Categories in AI and Algorithmic Fairness: Why They Matter and What They Represent.” *FACCT 2024*. [\[pdf\]](#)

## PRERINTS, WORKING PAPERS, & THESES

- [1] **J. Mickel**, M. De-Arteaga, L. Liu, & K. Tian. “Shifting Occupational Bias: Ramifications and Persistent Stereotypes.” *In Preparation*.
- [2] **J. Mickel**, S. Modi, J. Li, & K. Tian. “Bridging the Gap Between Worst Group and Average Performance.” *In Preparation*.
- [3] **J. Mickel**, M. De-Arteaga, & S. Fazelpour. “Accounting for the Effect of Interactions Diversity Considerations During Dataset Development.” *In Preparation*.
- [4] **J. Mickel**. “Intersectional Insights for Robust Models: Introducing FOG 🌈 for Improving Worst Case Performance Without Group Information.” *Turing Scholars Honors Thesis*. Department of Computer Science, University of Texas at Austin, 2024. [\[pdf\]](#)
- [5] **J. Mickel**. “The Importance of Multi-Dimensional Intersectionality in Algorithmic Fairness and AI Model Development.” *Polymathic Scholars Honors Thesis*. Department of Computer Science, University of Texas at Austin, 2023. [\[pdf\]](#)

## INDUSTRY EXPERIENCE

<b>Datadog</b> - <i>Software Engineering Intern</i> ; New York, NY	May 2024 - August 2024
<ul style="list-style-type: none"><li>Developed outlier detection metric for real-time identification of anomalous LLM responses, enhancing LLM Observability</li><li>Improved error metrics and payload field use visualization, resulting in a 20% reduction in errors and increase in field usage</li></ul>	
<b>Cruise</b> - <i>Software Engineering Intern</i> ; San Francisco, CA	May 2023 - August 2023
<ul style="list-style-type: none"><li>Increased autonomous vehicle (AV) trip controls by 100% enabling 100+ agents to remotely cancel and end AV trips for 10,000+ ridehail users in 400+ AVs by developing and deploying cancel trip and end ride early functionality using React and Node.js</li><li>Coordinated development across engineering, product, and design and tested using unit and E2E testing with the react-testing library and in prod with operations using driverless AVs to perform user acceptance testing and product functional testing</li></ul>	
<b>Indeed</b> - <i>Software Developer Intern</i> ; Austin, TX	May 2022 - August 2022
<ul style="list-style-type: none"><li>Engineered Right to Work onboarding process accessed by 180,000+ users yearly using React, Django, Typescript, and Python, which records and saves user information and personal identification to improve user security and maintain sole data ownership</li></ul>	
<b>Co-Founder and President</b> - <i>White Matter LLC</i> ; Dallas, TX	July 2020 - May 2022
<ul style="list-style-type: none"><li>Created mobile application using Python to provide users with working memory capacity for professional and individual use</li></ul>	
<b>Plexon Inc</b> - <i>Software Development Intern</i> ; Dallas, TX	June 2019 - August 2019, June 2020 - August 2020
<ul style="list-style-type: none"><li>Devised proprietary API in Python to read neural spike data and devised example programs to demonstrate API functions</li><li>Designed and developed neural data visualization applications using Python showcasing the integration of the PyOPXClient API</li></ul>	

## TALKS, PRESENTATIONS, AND PANELS

College of Natural Science Advisory Council AI Ethics/Safety Panel	UT Austin 2024
Evaluating the Social Impact of Generative AI Systems in Systems and Society	Datadog 2024
Evaluating the Social Impact of Generative AI Systems in Systems and Society	London Data Week 2024
Racial/Ethnic Categories in AI and Algorithmic Fairness: Why They Matter and What They Represent	ACM FACCT 2024
Evaluating the Social Impact of Generative AI Systems in Systems and Society	Princeton University 2024
Evaluating the Social Impact of Generative AI Systems in Systems and Society	Stanford University 2024
Evaluating the Social Impact of Generative AI Systems in Systems and Society	Cruise 2023

## TEACHING EXPERIENCE

- University of Texas at Austin** - *Natural Language Processing Teaching Assistant* August 2023 - December 2023
- Held weekly office hours, graded assignments, and assisted students in learning about word embeddings, FFNNs, transformers, LLMs, and building NLP projects (sentiment analysis NN, feed-forward neural network (FFNN), language model, final project)
- University of Texas at Austin** - *Originality in the Arts and Sciences Teaching Assistant* August 2021 - December 2023
- Mentored 3 cohorts of 6 undergraduate honors students in writing a grant proposal and developing a scientific experiment
  - Clarified and explained how to read research papers, ask research questions, and develop methods for computer science research

## ACADEMIC SERVICE

- **Core organizer** (one of seven) for the NeurIPS 2024 workshop on [Evaluating Evaluations: Examining Best Practices for Measuring Broader Impacts of Generative AI](#)
- **Student volunteer** for FAccT 2023 and FAccT 2024

## LEADERSHIP & INVOLVEMENT

- Turing Scholars Student Association** - *Co-President*; Austin, TX March 2022 - May 2024
- Led an 8-person team in providing and facilitating research and recruiting opportunities, mentorship, social events, resources, and support to 200+ students by coordinating with faculty, staff, students, and external organizations
  - Organized marketing, entertainment, and catering for events attended by 40+ students and provided resources to 200+ students
  - Coordinated student volunteer outreach and established workshop to improve program culture for underrepresented students
- Association of Computer Machinery For Change (A4C)** - *DEI Initiative Lead*; Austin, TX April 2021 - May 2023
- Established a Cultural Competency workshop for teaching assistants in the Computer Science department
  - Launched a monthly talk series discussing various topics within computer science drawing 45+ attendees per talk
  - Designed curriculum to educate 40+ members on enacting successful initiatives and lead the DEI initiative
- Convergent** - *Build Team Tech Lead*; Austin, TX September 2021 - December 2022
- Taught 50+ students the basics of git, React/React Native, and Flask, created presentations to support product development, and assisted students in developing Reactive Native apps using the Google Cloud API and Google Maps Platform
  - Collaborated with 3-5 students to create 2 applications using React Native, Google Speech API, PyTorch, Flask, Pandas, and the ESG, social sentiment, and Yahoo APIs

## HONORS

- Deans Honored Graduate (highest honor awarded to top  $\leq 1\%$  of graduating seniors) Spring 2024
- College of Natural Sciences Research Distinction Award (awarded to top  $\leq 5\%$  graduating seniors) Spring 2024
- Jean Holloway Teaching Award Selection Committee Fall 2023
- Natural Sciences 21st Century Endowed Presidential Scholarship Fall 2023 - Spring 2024
- Natural Sciences Council Endowed Service Scholarship Fall 2022 - Spring 2023
- Bob Williams Endowment for Excellence in Undergraduate Mathematics Fall 2022 - Spring 2023
- Nettle Bush PWS Scholarship Fall 2021 - Spring 2022
- University Honors (5 Semesters) Fall 2020 - Spring 2021, Spring - Fall 2022, Spring 2024
- Chuchu Ma Memorial Endowed Presidential Scholarship in Computer Science Fall 2020 - Spring 2021
- College of Natural Sciences Merit Scholarship Fall 2020 - Spring 2021

## TECHNICAL SKILLS

**Proficient In:** Python, PyTorch, Typescript, Javascript, Go, Java, C/C++, React/React Native, Node.js, Pandas, and SKLearn

**Familiar With:** R, SQL, Hugging Face transformers, Django, Coq, YAML, C#