JENNIFER MICKEL

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EDUCATION

The University of Texas at Austin Bachelor of Science, **Computer Science Honors (Turing Scholars** May 2024
Bachelor of Science and Arts, **Mathematics Honors (Polymathic Scholars)**
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. Leidinger, 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]

THESES

[1] **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]
[2] **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

Datadog - *Software Engineering Intern*; New York, NY May 2024 - August 2024
● Developed outlier detection metric for real-time identification of anomalous LLM responses, enhancing LLM Observability
● Improved error metrics and payload field use visualization, resulting in a 20% reduction in errors and increase in field usage
Cruise - *Software Engineering Intern*; San Francisco, CA May 2023 - August 2023
● 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
● 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
Indeed - *Software Developer Intern*; Austin, TX May 2022 - August 2022
● 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
Co-Founder and President - *White Matter LLC;* Dallas, TX July 2020 - May 2022
● Created mobile application using Python to provide users with working memory capacity for professional and individual use
Plexon Inc - *Software Development Intern*; Dallas, TX June 2019 - August 2019, June 2020 - August 2020
● Devised proprietary API in Python to read neural spike data and devised example programs to demonstrate API functions
● Designed and developed neural data visualization applications using Python showcasing the integration of the PyOPXClient API

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

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HONORS
● Deans Honored Graduate (highest honor awarded to top ≤1% of graduating seniors)   Spring 2024
● College of Natural Sciences Research Distinction Award (awarded to top ≤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#