Donna Tjandra – Curriculum Vitae

dotjand@umich.edu
https://detjandra.github.io/

INTRODUCTION & INTERESTS

I am a PhD student studying computer science at the University of Michigan, and I am advised by Professor Jenna Wiens. My research lies at the intersection of machine learning and healthcare. Broadly, my interests cover survival analysis and noisy label learning in the context of real-world problems like predicting the onset of Alzheimer's disease and sepsis.

EDUCATION

2018-2024 **University of Michigan, Ann Arbor**

2024: Doctor of Philosophy in Computer Science

- Advisor: Professor Jenna Wiens
- Dissertation topic: Survival Analysis with Multiple Events and Noisy Labels
- GPA: 3.93/4.00

2020: Master's of Science in Computer Science

2013-2018 **University of Toronto, St. George**

Bachelor's of Science

- Molecular Genetics and Computer Science
- GPA: 3.87/4.00

RESEARCH EXPERIENCE

2018-present **University of Michigan, Graduate Student Research Assistant**

- Advisor: Professor Jenna Wiens
- Topic: Developing novel machine learning techniques for survival analysis and noisy labels with Alzheimer's disease and sepsis

2022 **Amazon, Intern**

- Mentor: Dr. Nina Mishra
- Topic: Developing novel machine learning techniques for model explainability

2017-2018 **University of Toronto, Undergraduate Researcher**

- Advisor: Professor Kenneth Jackson
- Topic: Synthesizing training data for deep convolutional neural networks to detect lung nodules on frontal chest radiographs

2015-2017 **University of Toronto, Undergraduate Researcher**

- Advisor: Professor Charles Boone & Natasha Pascoe
- Topic: Discovering novel inhibitors for deubiquitinating enzymes using yeast two-hybrid

PUBLICATIONS

1. Irwin C, **Tjandra D**, Hu C, Aggarwal V, Lienau A, Giordani B, Wiens J, Migrino RQ. Predicting 5-year dementia conversion in veterans with mild cognitive impairment.

Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring. 2024 Jan;16(1):e12572.

2. Kamran F, **Tjandra D**, Heiler A, Virzi J, Singh K, King JE, Valley TS, Wiens J. Evaluation of Sepsis Prediction Models before Onset of Treatment. *NEJM AI* 2024 1, 3.

3. **Tjandra D**, Wiens J. Leveraging an Alignment Set in Tackling Instance-Dependent Label Noise. *CHIL*, June 2023

4. **Tjandra D,** Migrino RQ, Giordani B, Wiens J. Use of blood pressure measurements extracted from the electronic health record in predicting Alzheimer's disease: A retrospective cohort study at two medical centers. *Alzheimer's & Dementia*. 2022 Nov;18(11):2368-72.

5. **Tjandra D**, He Y, Wiens J. A Hierarchical Approach to Multi-Event Survival Analysis. In *Proceedings of the AAAI Conference on Artificial Intelligence 2021 May 18* (Vol. 35, No. 1, pp. 591-599)

6. **Tjandra D**, Migrino RQ, Giordani B, Wiens J. Cohort discovery and risk stratification for Alzheimer's disease: an electronic health record-based approach. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 6(1), e12035. 2020

7. Belth C, Kamran F, **Tjandra D**, Koutra D. When to remember where you came from: Node representation learning in higher-order networks. *IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM).* 2019.

8. Pascoe N, Seetharaman A, Teyra J, Manczyk N, Satori AM, **Tjandra D**, Makhnevych T, Schwerdtfeger C, Brasher BB, Moffat J, Costanzo M, Boone C, Sicheri F, Sidhu SS. Yeast Two-Hybrid Analysis for Ubiquitin-variant Inhibitors of Human Deubiquitinases. *Journal of Molecular Biology.* 436(6): 1160-1171. 2019

9. Goyal D, **Tjandra D**, Migrino RQ, Giordani B, Syed Z, Wiens J. Characterizing heterogeneity in the progression of Alzheimer's disease using longitudinal clinical and neuroimaging biomarkers. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring.* 10: 629-637. 2018

POSTER PRESENTATIONS

1. **Tjandra D.,** Wiens J. Survival Analysis with Multiple Noisy Labels: Formalization of a Novel Problem Setting. *Survival Prediction Algorithms, Challenges & Applications.* 2023

2. **Tjandra D**, Migrino RQ, Giordani B, Wiens J. An EHR-Based Risk Stratification Tool for Probable AD. *Alzheimers Association International Conference.* 2019

3. **Tjandra D**, Migrino RQ, Giordani B, Wiens J. An EHR-Based Cohort Discovery Tool for Identifying Probable AD. *Alzheimers Association International Conference.* 2019

4. **Tjandra D** & Cao W, Barfett J, Jackson K. Synthesizing Training Data for a Deep Convolutional Network to Detect Abnormalities in Frontal Chest Radiographs. *University of Toronto Undergraduate Poster Fair in Computer Science.* 2017

5. **Tjandra D** & Tung E, Pascoe N, Costanzo M, Sidhu SS, Boone CM. Discovering Novel Ubiquitin Variant Inhibitors of Deubiquitinases in vivo: Strategies using Budding Yeast. *University of Toronto Undergraduate Poster Fair in Molecular Genetics.* 2016

6. **Tjandra D**, Pascoe N, Costanzo M, Sidhu SS, Boone CM. Discovering Novel Ubiquitin Variant Inhibitors of Deubiquitinases in vivo: Strategies using Budding Yeast. *University of Toronto Undergraduate Poster Fair in Molecular Genetics.* 2015

REVIEWING

2024-2025	**KDD** (Knowledge Discovery and Data Mining conference)
2024	**ACML** (Asian Conference on Machine Learning)
2023	**ML4H** (Machine Learning for Health Conference)
2023-2024	**Time Series for Health** (ICLR conference workshop)
2023-2024	J**AMIA** (Journal of the American Medical Informatics Association)
2022	**MLHC** (Machine Learning for Healthcare conference)

TEACHING EXPERIENCE

2021 **University of Michigan**

- Graduate student instructor for Discrete Math (EECS 203)

2017-2018 **University of Toronto**

- Teaching Assistant for Introduction to the Theory of Computer Science (CSC 236)

EXTRACURRICULAR ACTIVITIES & OUTREACH

2023 **University of Michigan, Xplore Engineering**

- Assisted in facilitating Xplore Engineering (a program that introduces engineering to 4th-7th graders)

2021 **University of Michigan, F.E.M.M.E.S.**

- Assisted in facilitating F.E.M.M.E.S. (females excelling more in math, engineering, and the sciences) explore

2020 **University of Michigan CSE DEI focus group**

- An organization of students and faculty to promote DEI (diversity, equity and inclusion) in the CSE (computer science and engineering) department, serving as a member

2020 **University of Michigan, Onboarding Buddy**

- Serving as point of contact for new graduate students

2020 **University of Michigan, SURE**

- Mentored an undergraduate student (Yifei He) in research for the SURE (Summer Undergraduate Research Experience) program, resulting in a co-authored publication[1] at AAAI

2019-2020 **University of Michigan, CSEG Wellness**

- A group from CSEG (Computer Science and Engineering Graduate student organization) at the University of Michigan to promote overall wellness and mental health, serving as a member

2019 **University of Michigan, Explore Graduate Studies**

- A program to promote participation of underrepresented minorities in graduate studies in computer science, served as a volunteer

2018-2019 **Michigan AI Symposium**

- An event bringing together AI (artificial intelligence) researchers and practitioners from Southeastern Michigan to discuss the latest advancements in AI, served as a volunteer

2014 **University of Toronto, Student panel for math course selection**

- Served as a panellist

HONORS & AWARDS

2017 **First Prize** at the Undergraduate Summer Research Poster Fair (Department of Computer Science, University of Toronto)

2015 & 2016 **Undergraduate Student Research Award** (USRA) from the Natural Sciences and Engineering Research Council (NSERC)

2014 & 2015 **Chancellor's Scholarship** funded by the St. Hilda's Board

2013-2017 **Dean's Honor List** (University of Toronto)

ADDITIONAL SKILLS

Computational Knowledgeable of: Python, Java, Verilog, C, Matlab, SQL
Also knowledgeable with training deep neural networks using Pytorch

Biological Wet lab skills such as DNA extraction and protein purification