Donna Tjandra – Curriculum Vitae

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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 topics like survival analysis and noisy label learning in the context of real-world problems such as predicting the onset of Alzheimer's disease and sepsis.

EDUCATION

2018-present **University of Michigan, Ann Arbor**
In progress: Doctor of Philosophy
- Advisor: Professor Jenna Wiens
- Dissertation topic: Learning from clinical data in the presence of noise and uncertainty
- 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

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. **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)

2. **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

3. 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.

4. 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

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

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

3. **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

4. **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

5. **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

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

2021 **University of Michigan, F.E.M.M.E.S.**
- Assisted in facilitating F.E.M.M.E.S. (females excelling more in match engineering and the sciences) explore

2020-present **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-present **University of Michigan, Onboarding Buddy**
- Serving as point of contact for new graduate students

2020 **University of Michigan, SURE**
- Mentored an undergraduate student in research for the SURE (Summer Undergraduate Research Experience) program, resulting in a co-authored publication[1] at AAAI

2019-present **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

2016-2018 **University of Toronto, Undergraduate Theory Group**
- Served as a member

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