Donna Tjandra – Curriculum Vitae

donnatjandra@gmail.com
5151 North 16th Street, Phoenix, Arizona, 85016
(425) 246-4208
https://detjandra.github.io/

INTRODUCTION

I am a health scientist statistician at the Arizona Veterans Research and Education Foundation, where I use computational techniques, such as machine learning, to model long term outcomes in individuals with diabetes. I obtained my PhD in computer science from the University of Michigan in 2024. My dissertation specialized in machine learning, where I focused on survival analysis and noisy label learning, two settings that are broadly applicable in real-world problems.

EDUCATION

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

2024: Doctor of Philosophy in Computer Science

- Advisor: Professor Jenna Wiens
- Dissertation title: Predicting the Timing of Clinical Outcomes in the Presence of 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**

2018: Bachelor's of Science in Molecular Genetics and Computer Science

- GPA: 3.87/4.00

WORK EXPERIENCE

2025- **Arizona Veterans Research and Education Foundation**

- Position: Health Scientist Statistician
- Mentor: Dr. Peter Reaven
- Topic: Leveraging computation techniques to model long term outcomes from big data on individuals with diabetes

2018-2025 **University of Michigan**

- Positions: Graduate Student Research Assistant (2018-2024), Postdoctoral Fellow (2024-2025)
- Advisor: Professor Jenna Wiens
- Topic: Developing novel machine learning techniques for survival analysis and noisy labels, modeling Alzheimer's disease and sepsis

2022 **Amazon**

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

2015-2018 **University of Toronto**

- Position: Undergraduate Researcher

- Advisors: Professor Kenneth Jackson (2017-2018), Professor Charles Boone & Natasha Pascoe (2015-2017)
- Topic: Synthesizing training data for deep convolutional neural networks to detect lung nodules on frontal chest radiographs (2017-2018), discovering novel inhibitors for deubiquitinating enzymes using yeast two-hybrid (2015-2017)

SKILLS

Programming Languages	Python, SQL, Java, Verilog, C, Matlab, R
Machine Learning	Model training using Python, Pytorch, Scikit-Learn; familiarity with common modeling approaches such as logistic regression, support vector machines, random forest, neural networks, recurrent neural networks; able to read academic papers describing advancements in state-of-the-art
Big Data	Manipulating big data with Pytorch, Scikit-Learn, Numpy, Pandas, Matplotlib; familiarity with Microsoft SQL Server Management Studio

PUBLICATIONS

1. **Tjandra D**, Irwin C, Migrino RQ, Giordani B, Wiens J. Estimated Effects of Comorbidities on Risk of All-cause Dementia in Patients with Mild Cognitive Impairment. *Sage Open Aging.* 2025 Jun;11:30495334251347053.
2. Kamran F, **Tjandra D**, Valley TS, Prescott HC, Shah NH, Liu VX, Horvitz E, Wiens J. Reformulating patient stratification for targeting interventions by accounting for severity of downstream outcomes resulting from disease onset: a case study in sepsis. Journal of the American Medical Informatics Association. 2025 May;32(5):905-13.
3. **Tjandra D**, Wiens J. Survival Analysis with Multiple Noisy Labels. *ICDM*, December 2024
4. 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.
5. 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.
6. **Tjandra D**, Wiens J. Leveraging an Alignment Set in Tackling Instance-Dependent Label Noise. *CHIL*, June 2023
7. **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.
8. **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)
9. **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

10. 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.
11. 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
12. 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

ACADEMIC REVIEWING

2024-2025	**KDD** (Knowledge Discovery and Data Mining conference)
2024-2025	**ACML** (Asian Conference on Machine Learning)
2023-2024	**ML4H** (Machine Learning for Health Conference)
2023	**Time Series for Health** (ICLR conference workshop)
2023-2024	**JAMIA** (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)

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, served 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, served 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

2024 **NSF Student Travel Award** for ICDM (International Conference on Data Mining)

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)