

EDUCATION

University of Toronto

Master of Science in Biostatistics

Cumulative GPA: 4.0/4.0

Toronto, Canada
Sep 2025 – 2026 (Expected)

Honours Bachelor of Science

Specialist (Theory and Methods) in Statistical Sciences; Major in Mathematics

Graduated with High Distinction — Cumulative GPA: 3.5/4.0

Sep 2021 – June 2025

Relevant Graduate Coursework:

- **Clinical/Applied:** Survival Analysis, Clinical Trials, Categorical & Correlated Data.
- **Methods/ML:** Bayesian Statistics, Machine Learning, Spatial Data, Applied Stat Methods.
- **Theory:** Mathematical Statistics, Probability, Analysis, Linear Algebra.

RESEARCH EXPERIENCE

HIVE Lab, Institute of Health Policy, Management and Evaluation, University of Toronto

Practicum Student

Toronto, Canada
October 2025 – Present

- Working on developing and externally validating an explainable 180-mortality risk model for metastatic castration-resistant prostate cancer using de-identified multi-trial clinical data.
- Comparing the performance of candidate deep-learning models and clinical utility of the models.

ReSTORE Lab, Faculty of Medicine, University of Toronto

SUDS Scholar & Research Assistant

Toronto, Canada
May 2025 – Present

- Modeling disease progression in SLE patients using longitudinal data from the Toronto Western Lupus Clinic (UHN).
- Developing neural network models predicting workforce dropout with 94% sensitivity and a 28.6-month median lead time, facilitating early clinical intervention.
- Conducting statistical analysis of projects on effects of treatment and employment transitions.

Statistical Consultant

September 2024 – April 2025

- Led statistical analyses for multidisciplinary teams using R and Python, integrating RNN and NLP into rehabilitation studies.
- Designed methodology and co-authored manuscripts for health partner and hospital-based projects.

Women's College Hospital

Institute of Medical Science Summer Undergraduate Research Program (SURP) Scholar

Toronto, Canada
June – August 2025

- Investigated disparities in treatment response between lobular and ductal breast cancer using the SEER database.
- Developed propensity score-matched cohorts and performed survival analysis using Cox Proportional Hazards regression and Kaplan-Meier curves for Triple Negative and HER2 positive carcinomas.
- Identified significantly limited efficacy of chemotherapy in triple-negative lobular carcinoma, potentially serving to inform future treatment guidelines.

Department of Statistical Sciences, University of Toronto

STA497: Readings in Statistics co-supervised by Dr. Michael Evans and Dr. Scott Schwartz.

Toronto, Canada
May – December 2024

- Automated experimental bias evaluations using Bayesian methods in PyMC, a probabilistic programming framework.
- Compared analytical results, using posteriors and priors, to simulations, estimating likelihoods and marginal likelihoods, and extended project to non-conjugate priors using simulation approach.
- Vectorized operations and implemented Cholesky decompositions to address scalability issues.

Stigma and Motivation Lab, Department of Psychology, University of Toronto

Research Assistant

Toronto, Canada
April 2024 – April 2025

- Worked on data analysis in studies exploring the mental health of sexual minorities.
- Performed scale validations using Confirmatory Factor Analysis (CFA) and conducted moderation/mediation analyses.

PROFESSIONAL EXPERIENCE

KPMG

Intern, Financial Consulting

Madrid, Spain
May – August 2024

- Handled handling post-acquisition integration of applications and systems to the client's global zone.
- Created sample testing data for the different message queues and performed corresponding simulations using APIs.

SELECTED PUBLICATIONS

Mencia Ledo, J., Noaen, M., Shakeri, Z., (2026) Externally Validated Longitudinal GRU Model for Visit-Level 180-Day Mortality Risk in Metastatic Castration-Resistant Prostate Cancer <https://doi.org/10.48550/arXiv.2601.20046> (Pre-Print)

Mencia Ledo, J., Siddiqui, S., Lau, H.K.C. et al. (2026) Evaluating the Validity of the GM@W Survey: A Psychometric Study Across Gender and Industry. **J Occup Rehabil** . <https://doi.org/10.1007/s10926-026-10367-x>

Shahzad, M., **Mencia Ledo, J.**, Azarmi, M. et al. Safeguarding the skilled trades: burnout, job satisfaction, and the risk of turnover in Ontario electricians. **npj Mental Health Res** 5, 4 (2026). <https://doi.org/10.1038/s44184-026-00189-3>

Li, K. C., **Mencia Ledo, J.**, Neel, R.(2026) The Differential Roles of Minority Stressors in LGB Identity Disclosure **Journal of Homosexuality** <https://doi.org/10.1080/00918369.2025.2610502>

Obeidat, D., Lau, H.C.K., **Mencia Ledo, J.**, Siddiqui S., Sarawan A., Shi Z., Premji R., Howe, A., Bani-Fatemi, A., Asgary A., Gohar B., Kumar Chattu V., Maina G., Sunil T., Nowrouzi-Kia, B. (2025) Worker Health and Well-being in Ontario's Electrical Sector: A Quantitative Study of Occupational Health Outcomes **Frontiers in Public Health** <https://doi.org/10.3389/fpubh.2025.1735294>

Dolker, T., Dolma, T., Spoerel, A., Cameron, M., Bortolin, B., Colebatch, A., Crooks, C., Toolsiedas, H., **Mencia Ledo, J.**, Long, B.-Z.S., Siddiqui, S., Premji, R., McDougall, A., Nowrouzi-Kia, B. (2025) Yoga as a modality in occupational therapy practice for adults experiencing mood disorders: SR and MA **The British Journal of Occupational Therapy** <https://doi.org/10.1177/03080226251412253>

PRESENTATIONS

7th Work Disability Prevention and Integration Meeting, Vancouver BC, May 2026. **J. Mencia Ledo, Z. Touma, B. Nowrouzi-Kia.** "Predicting Early Workforce Departure in Systemic Lupus Erythematosus Patients: A Machine Learning Approach to Guide Early Clinical Intervention" (*Oral*)

15th European Lupus Meeting, Lisbon PT, March 2026. **J. Mencia Ledo, Z. Touma, B. Nowrouzi-Kia.** "Early Prediction of Labour Force Dropout in SLE Patients: Integrating Longitudinal Deep Learning" (*Poster*)

Canadian Rheumatology Association (CRA) Annual Scientific Meeting, Halifax NS, April 2026:

- **J. Mencia Ledo, Z. Touma, B. Nowrouzi-Kia.** "Predicting Work Disability in Systemic Lupus Erythematosus Patients: a Machine Learning Approach to Guide Early Clinical Intervention" (*Selected for Poster Tour*)
- **J. Mencia Ledo, Z. Touma, B. Nowrouzi-Kia.** "Effects of Pharmacotherapy on Fibromyalgia Symptoms and Functional Outcomes in Systemic Lupus Erythematosus: a Moderation Analysis on a Multicenter Canadian Study" (*Poster*)

Data Sciences Institute SUDS Showcase, Toronto ON, August 2025. **J. Mencia Ledo, D. Bonilla, Z. Touma, B. Nowrouzi-Kia.** "Early Prediction of Labour Force Dropout in SLE Patients: Integrating Longitudinal Deep Learning through an LSTM RNN with Random Forests" (*Oral*)

Institute of Medical Sciences SURP Research Day, Toronto ON, August 2025. **J. Mencia Ledo, D. Lim.** "Differential Chemotherapy Benefit in Triple-Negative Breast Cancer: Invasive Lobular vs. Ductal Carcinoma" (*Poster*)

Society for Personality and Social Psychology Self and Identity Preconference, Denver CO, February 2025. C. K. Li, **J. Mencia Ledo, R. Neel.** "To conceal or disclose? The differential role of minority stress in LGB identity concealment and disclosure." (*Poster*)

Undergraduate Research Presentations Department of Statistical Sciences, Toronto ON, August 2024. **J. Mencia Ledo, F. Liu, S. Schwartz.** "Demonstrating the feasibility of automating experimental bias evaluations within probabilistic programming frameworks" (*Oral*)

AWARDS

SURP Scholar, University of Toronto Institute of Medical Sciences (\$6,974 CAD)	2025
SUDS Scholar, University of Toronto Data Science Institute (\$7,200 CAD)	2025
UDSC Scholar, University of Toronto School of Cities (\$9,500 CAD - Declined)	2025
Faculty of Arts and Science Dean's List Scholar	2021, 2025

VOLUNTEER EXPERIENCE

President of the University of Toronto Run Club September 2024 – Present

- Coordinating 15 run leaders to organize events for over 500 runners each semester, and creating partnerships.

Co-Chief of Data Management at Food Security Analytica September 2024 – August 2025

- Researching UofT Scarborough food security via survey design, regression analysis, and stakeholder reporting