Javier Mencia Ledo

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Toronto, Canada

EDUCATION

Ph.D. in Biostatistics, University of Toronto 2026

Master of Science in Biostatistics, University of Toronto Sep 2025 – April 2026
Cumulative GPA: 3.97/4.0

Honours Bachelor of Science, University of Toronto Sep 2021 – June 2025
Specialist (Theory and Methods) in Statistical Sciences; Major in Mathematics
Graduated with High Distinction — Cumulative GPA: 3.5/4.0

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.

PROFESSIONAL EXPERIENCE

AstraZeneca Mississauga, Canada
Oncology Outcomes Research Intern May 2026 – Present

- Working on HEOR and RWE studies within the GI oncology team.

HIVE Lab, Institute of Health Policy, Management and Evaluation, University of Toronto Toronto, Canada
Practicum Student October 2025 – April 2026

- Working on developing and externally validating an explainable 180-day 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 Toronto, Canada
SUDS Scholar & Research Assistant May 2025 – April 2026

- 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

- Conducted statistical analyses for rehabilitation studies with multidisciplinary teams using R and Python.
- Used generalized linear models, Confirmatory Factor Analysis and ML methods, including NLP.
- Designed methodology and co-authored manuscripts for health partner and hospital-based projects.

Women's College Hospital Toronto, Canada
Institute of Medical Science Summer Undergraduate Research Program (SURP) Scholar 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 Toronto, Canada
STA497: Readings in Statistics co-supervised by Dr. Michael Evans and Dr. Scott Schwartz. 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.

KPMG Madrid, Spain
Intern, Financial Consulting 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., Noaeen, 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

Siddiqui S, **Mencia Ledo, J.**, Premji R, Lau HKC, et al. (2026) Comparing barriers to employee assistance program utilization in Canada and the United States using natural language processing and machine learning. **PLOS Ment Health** https://doi.org/10.1371/journal.pmen.0000589

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

PRESENTATIONS

IEEE EMBC, Toronto ON, July 2026. **J. Mencia Ledo**, M. Noaeen, Z. Shakeri. "Externally Validated Longitudinal GRU Model for Visit-Level 180-Day Mortality Risk in Metastatic Castration-Resistant Prostate Cancer" *(Poster and Full Paper)*

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 Oral 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)*

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

Patrick Loisel Award for Best Student Oral Abstract, WDPI Conference ($250 CAD) 2026
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 – May 2026
- 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

Summer Camp Counselor Volunteer, Spanish Red Cross July 2023 – August 2023
- Sourced and negotiated free activities through local business partnerships to organize and lead a fully self-funded two-week summer camps serving 50 children