Javier Mencia Ledo

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Toronto, Canada

EDUCATION

University of Toronto   Toronto, Canada

M.Sc. in Biostatistics   2025-Present

GPA: 4.0/4.0

University of Toronto   Toronto, Canada

H.B.Sc. Statistical Sciences Specialist (Theory and Methods) and Mathematics Major with High Distinction   2021-2025

GPA: 3.5/4.0

Relevant Coursework: Analysis, Applied Statistics Methods, Bayesian Statistics, Categorical and Correlated Data Analysis, Linear Algebra, Machine Learning, Mathematical Statistics, Probability, Regression, Spatial Data Analysis, Survival Analysis, and Statistical Methods for Clinical Trials

RESEARCH EXPERIENCE

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

Practicum Student   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   Toronto, Canada

Research Assistant and Statistical Consultant   September 2024 − Present

- Working on the analysis of numerous projects using data from health partners and hospitals in Canada with R and Python
- Integrating machine learning techniques, including NLP and RNN, to studies on rehabilitation.
- Designed analyses and led projects and manuscripts with multidisciplinary teams.
- Offered full-time summer role after being a part-time RA for a year and offered an additional return offer after the summer.

Summer Undergraduate Data Science (SUDS) Opportunities Program Scholar   May 2025 − August 2025

- Worked on a series of projects to model disease progression in lupus patients with the Toronto Western Lupus Clinic (UHN)
- Developed hybrid RF-LSTM model predicting workforce dropout in SLE patients with 94% sensitivity and 28.6-month median lead time, enabling early clinical intervention through longitudinal analysis.
- Selected for oral presentation at SUDS Showcase and 2026 WDPI conferences.

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.

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

Research Assistant   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   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.

AXPE Consulting Madrid, Spain
Intern, Quant AI Lab June − August 2022
- Performed data mining with Python and data preparation/cleaning with SQL.
- Used pandas and SciPy to produce time series data forecasts of client data.

SELECTED PUBLICATIONS

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: A systematic review and meta-analysis **The British Journal of Occupational Therapy** *In Press*

PRESENTATIONS

7th Work Disability Prevention and Integration Meeting, Vancouver BC, May 2026. **Javier Mencia Ledo**, Zahi Touma, Behdin 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. **Javier Mencia Ledo**, Dennisse Bonilla, Zahi Touma, Behdin Nowrouzi-Kia. "Early Prediction of Labour Force Dropout in SLE Patients: Integrating Longitudinal Deep Learning through an LSTM RNN with Random Forests" *(Poster)*

Canadian Rheumatology Association (CRA) Annual Scientific Meeting, Calgary AB, February 2026. **Javier Mencia Ledo**, Dennisse Bonilla, Zahi Touma, Behdin Nowrouzi-Kia. "Predicting Work Disability in Systemic Lupus Erythematosus Patients: a Machine Learning Approach to Guide Early Clinical Intervention" *(Oral)*

Data Sciences Institute SUDS Showcase, Toronto ON, August 2025. **Javier Mencia Ledo**, Dennisse Bonilla, Zahi Touma, Behdin 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. **Javier Mencia Ledo**, David 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. Colin K. Li, **Javier Mencia Ledo**, Rebecca 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. **Javier Mencia Ledo**, Feifan Liu, Scott 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

Camp Counselor at Spanish Red Cross June 2022 − August 2022
- Organized and led activities for 50 children from underprivileged backgrounds and provided help with their school work.