Curriculum Vitae: Lamin Juwara

Education

2018-2022 **PhD. Computational Statistics Stream, Quantitative Life Sciences**, McGill University
Thesis Privacy-preserving regression methods for distributed biomedical data
Advisors Dr Paramita Saha-Chaudhuri, Prof Archer Yi Yang, and Dr Ana M. Velly

2016-2018 **MSc. Biostatistics**, McGill University, Canada
Thesis Virtual Pooling as a Privacy-preserving Analysis Tool
Supervisor Dr Paramita Saha-Chaudhuri

2015-2016 **MSc. Mathematics**, Stellenbosch University, South Africa
Thesis Reverse-engineering T-cell proliferation dynamics
Supervisor Dr Wilfred Ndifon

2011-2015 **BSc. Mathematics (Hons)**, Kwame Nkrumah University of Science and Technology, Ghana
Thesis Representation Theory of Finite Groups
Supervisor Dr Richard Kena Boadi

Work Experience

07/22-Now **Postdoctoral Research Associate**, Electronic Health Information Laboratory, University of Ottawa
- Application of machine learning methods to synthetic data generation.

01/19-06/22 **Biostatistician**, iMD Research Inc, Montreal QC
- Study design, data analysis, and report writing.

01/20-04/21 **Graduate Teaching Assistant in Statistics, Math 324**, McGill University
- Sampling distributions, point and interval estimation, hypothesis testing, analysis of variance, contingency tables, nonparametric inference, regression, Bayesian inference.

09/17-01/19 **Data Analyst**, Lady Davis Institute at the Jewish General Hospital , Montreal QC
- Study design, analysis, and report writing.

Summer 2017 **Visiting Research Scholar**, South African Centre for Epidemiological Modelling and Analysis
- Developed web based applications for HIV incidence estimation (UNAIDS project)
- R Shiny Framework

Scholarships, Awards, & Prizes

2019-2022 Graduate Excellence Award, Quantitative Life Sciences, McGill University ($13,500×3)
June, 2021 Best poster prize, PhD category. The Ninth Canadian Statistics Student Conference (CSSC, 2021)
2018-2022 Mitacs Accelerate Fellowship, McGill University ($80,000)
Feb., 2018 Best poster prize, 14th Annual Student Research Day of the Department of Epidemiology, Biostatistics and Occupational Health. McGill University.
2016-2018 MasterCard Foundation Scholarship, McGill University ($100,000)
July, 2016 The Martin Rees Fellowship for Academic Excellence at AIMS South Africa Graduation, Stellenbosch.
2015-2016 African Institute for Mathematical Sciences (AIMS) Postgraduate Scholarship ($10,000)
June, 2015 Best graduating student, Department of Mathematics, KNUST Ghana (Rank: 1/140).

Selected articles

1. Juwara L, Saha-Chaudhuri P (2022). A Hybrid Covariate Microaggregation Approach for Privacy-Preserving Logistic Regression. Journal of Survey Statistics and Methodology. [link]
2. Saha-Chaudhuri P, Juwara L (2021). Survival Analysis under the Cox Proportional Hazards model with Pooled Covariates. Statistics in Medicine. [link]
3. Cressatti M, Galindez JL, Juwara L, ... , Velly AM, Schipper HM (2020). Characterization and heme oxygenase-1 content of extracellular vesicles in human biofluids. Journal of Neurochemistry. [link]
4. Juwara L, ..., Saha-Chaudhuri P, Velly AM (2020). Predicting neuropathic pain after breast cancer surgery using machine learning. International Journal of Medical Informatics. [link]
5. Cressatti M, Juwara L, Galindez JL, ..., Velly AM, Schipper HM (2020). Salivary miR-153 and miR-223 levels as diagnostic biomarkers of idiopathic Parkinson disease. Movement disorders. [link]

Peer reviewed abstracts (selected)

1. Juwara L, Yang Y, and Saha-Chaudhuri P. Improving the efficiency of meta-analysis estimators for privacy-preserving Cox regression. QLS Research Day, 2022.
   [*Oral presentation*]
2. Juwara L, Yang Y, and Saha-Chaudhuri P. Privacy-preserving Cox proportional hazards regression with aggregate covariates. Annual Canadian Statistics Student Conference, 2021.
   [*Best poster prize, PhD category*]
3. Juwara L and Saha-Chaudhuri P. Predictive modeling under data privacy restrictions. Statistical Society of Canada annual Conference, 2020. [*Travel award*]
4. Juwara L and Saha-Chaudhuri P. Microaggregation as a Privacy-Preserving Analytical Tool for Analysis of Confidential Distributed Data. International Society of Pharmacoepidemiology mid-year meeting, 2018.
   [*Travel award*]
5. Juwara L, Schmidt A, and Saha-Chaudhuri P. Virtual Pooling as a Privacy-preserving Analysis Tool to Estimate Covariate Hazard Ratio (HR) of Cox Proportional Hazard Model. 14th Annual Student Research Day of the Department of Epidemiology, Biostatistics and Occupational Health, 2018.
   [*Best poster award*]

Software & other services

2020-Now	Reviewer for Journal of Survey Statistics and Methodology (JSSM), International Journal of Medical Informatics, and JMIR AI.
03/2021	Co-Reviewer for JMIR Medical Informatics ($\times 1$)
05/2019	Incidence estimation tools (UNAIDS tools) [link]
08/2018	Prevalence and Incidence Calculator: Calculates HIV incidence from prevalence survey data that include biomarkers of recent infection. UNAIDS [link]
2018-Now	Maintain several R-Packages (e.g. [link]) and Web-based tools [link]

Computer skills

Advanced	R, Python, MatLab, LaTeX, Linux, SAS, and Office suites
Intermediate	HTML, Visual Basics, and SPSS.

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