Carlos Andrés Araiza Iturria

200 University Ave W Waterloo, ON, N2L 3G1 ☑ carlos_araiza02 [at] hotmail.com ⓓ <u>uwaterloo.ca/scholar/caraizai/home</u> ⓓ <u>linkedin/actcarlosaraiza</u>

Proficient at efficiently solving complex problems using theory and methodology from financial engineering, statistics and actuarial science. My projects typically involve developing and analyzing algorithms for valuation and risk management tasks, or accurate predictive models for pricing and underwriting. Increasingly, this work involves high performance computation and using machine learning. My doctoral dissertation promotes fairness, efficiency and transparency by measuring the discriminatory consequences that arise from errors in the design and implementation of pricing algorithms. Highly skilled in:

P&CReinfEquit	& Health PricingMaorcement learningIFFy-linked contingenciesMu	achine learning•RS 17•altivariate statistics•	Risk management Copulas Option pricing
	Education		
2019 – 3-2023	 Ph.D. in Actuarial Science, University of Waterloo Waterloo, Canada Supervisors: Mary Hardy, Paul Marriott Dean of Math Excellence Scholarship GPA: 93.3/100 Selected coursework: Financial Econometrics: AI in Finance & Business Analytics, Extreme Value Theory, Machine Learning for Quantitative Finance, Advanced Life Insurance Practice. 		
2017 – 2019	M.Sc. in Mathematics, Concordia University Institut des science mathématiques Scholarship GPA: 4.14/4.30		Montreal, Canada
2012 – 2016	B.Sc. in Actuarial Science, Anahua Minor in Financial Management First-Class Honors GPA: 9.6/10	ac University	Mexico City, Mexico
	Professional Experience		
2017-2021	 Research and Teaching Assistant University of Waterloo (2019-2021) and Concordia University (2017-2019) Managed over 650 undergraduate and 40 graduate students in 13 courses including probability, investments, corporate finance, mathematical statistics, P&C pricing, casualty and health insurance mathematics and financial econometrics. 		
2018-2019	Research and Development InternEckler Ltd.Developed model to measure Participation	1 &C insurance risks under IFRS 1	Montreal, Canada 7 framework.
2016-2017	 Financial Analyst Group H+ Implemented pricing model that Financial modeling course by p 	t improved margins by 50%. rivate equity fund: Discovery Ar	Mexico City, Mexico nericas.

Accenture – Predictive Location Intelligence • Designed a sales statistical model for predictive analytics for a major retail client. 2015 Statistical Analysis Intern Mexico City, Mexico The Mexican Institute of Integrated Prevention • Optimized project analysis time through a VBA algorithm. • Descriptive and inferential statistics with survey data. Publications 2022 Carlos Andrés Araiza Iturria, Mary Hardy, Paul Marriott A Discrimination-Free Premium Under a Causal Framework. Available at SSRN: http://dx.doi.org/10.2139/ssm.4079068 2021 Carlos Andrés Araiza Iturria, Mary Hardy, Paul Marriott A Consolidated Database of Police-Reported Motor Vehicle Traffic Accidents in the United States for Actuarial Applications. Available at SSRN: http://dx.doi.org/10.2139/ssm.3977693 2021 Carlos Andrés Araiza Iturria, Frédéric Godin, Mélina Mailhot Tweedie double GLM loss triangles with dependence within and across business lines. European Actuarial Journal, 11, 619-653, https://doi.org/10.1007/s13385-021-00267-0 2022 A discrimination-free premium under a causal framework. Artuarial Research Conference, University of Illinois Los Angeles, California Annual Meeting of the American Risk and Insurance Association 2020 Discrimination-aware decisions in finance and insurance. Virtual Actuarial Research Conference, University of Nebraska-Lincoln. 2019 Modeling and Measuring Insurance Risks under IFRS 17. Annual Meeting of the Statistical Society of Canada Annual Meeting of the Statistical Society of Canad	2016	Statistical Analyst	Mexico City, Mexico
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