RESUME

Name:	**Carolina Ivonne Marchant Fuentes**
Passport number:	15.919.952-5 (Chile)
Address:	Avenida San Miguel 3605, Talca, Chile
Number cell phone:	(+56)(9)89360667
Email:	carolina.marchant.fuentes@gmail.com

Education:

- Doctor in statistics, Federal University of Pernambuco, Brazil, under the supervision of Dr. Francisco Cysneiros and Dr. Víctor Leiva (2013-2016). Ph.D. dissertation entitled "Essays on multivariate generalized Birnbaum-Saunders models".
- Master in statistics (with maximum distinction), University of Valparaíso, Chile, under the supervision of Dr. Karine Bertin and Dr. Víctor Leiva (2009-2010). M.Sc. dissertation entitled "Estimación de funciones de densidad usando kérnel Birnbaum-Saunders generalizado".
- Engineer in statistics (with distinction), University of Valparaíso, Chile, under the supervision of Dr. Víctor Leiva and Dr. Antonio Sanhueza (2003-2008). Finally work entitled "Distribuciones estadísticas aplicadas al modelamiento de datos de contaminación atmosférica" .
- Bachelor in statistics (with distinction), University of Valparaíso, Chile (2003-2007).
- Accountant in business school Alejandro Lubet Vergara, Quilpué, Chile (1999-2002).

Research interests:

- Univariate and multivariate distributions theory • Birnbaum-Saunders distribution • Statistical modeling • Statistical quality control • Density estimation using kernel methods.

Editorial work:

- Editor-in-Chief, Chilean Journal of Statistics, 2020-present.
- Associate Editor, Statistics, Optimization & Information Computing, 2021-present.

WOS publications:

• Saulo, H., Vila, R., Borges, G.V., Bourguignon, M., Leiva, V., **Marchant, C.** 2023 Modeling income data via new parametric quantile regressions: Formulation, computational statistics, and application . Mathematics, 11, 448. https://doi.org/10.3390/math11020448.

• Leiva, V., dos Santos, R., Saulo, H., **Marchant, C.**, Lio, Y. 2023. Bootstrap control charts for quantiles based on log-symmetric distributions with applications to monitoring of reliability data. Quality and Reliability Engineering International https://doi.org/10.1002/qre.3072.

• Jeldes, N., Ibacache-Pulgar, G., Marchant, C., López-Gonzales, J. 2022. Modeling Air Pollution Using Partially Varying Coefficient Models with Heavy Tails. Mathematics, 10, 3677. https://doi.org/10.3390/math10193677

• Cárcamo, E., **Marchant, C.**, Ibacache-pulgar, G., and Leiva, V. 2022. Birnbaum-Saunders semi-parametric additive modeling: estimation, smoothing, diagnostics, and application. REVSTAT-Statistical Journal. (In press) https://revstat.ine.pt/index.php/REVSTAT/article/view/483/546

• Carreño, G., López-Cortés, X.A., **Marchant, C.** 2022. Machine Learning Models to Predict Critical Episodes of Environmental Pollution for PM2.5 and PM10 in Talca, Chile. Mathematics 2022, 10, 373. https://doi.org/10.3390/math10030373

• Sánchez, L., Leiva, V., Saulo, H., **Marchant, C.**, Sarabia, J.M. 2021. A New Quantile Regression Model and Its Diagnostic Analytics for a Weibull Distributed Response with Applications. Mathematics 9 (21), 2768 https://doi.org/10.3390/math9212768

• Palacios, C., Reyes-Suarez, J., Bearzotti, L., Leiva, V., **Marchant, C.** 2021. Knowledge Discovery for Higher Education Student Retention based on Data Mining: Machine Learning Algorithms and Case Study in Chile. Entropy 23:485. https://doi.org/10.3390/e23040485

• Ibacache-pulgar, G., Figueroa-Zuñiga, J., **Marchant, C.** 2021. Semiparametric additive beta regression models: inference and local influence diagnostics. REVSTAT-Statistical Journal 19(2):255-274. https://www.ine.pt/revstat/pdf/REVSTAT_v19-n2-05.pdf

• Puentes, R., **Marchant, C.**, Leiva, V., Figueroa-Zuñiga, J., Ruggeri, F. 2021. Predicting PM2.5 and PM10 Levels During Critical Episodes Management in Santiago, Chile, with a Bivariate Birnbaum-Saunders Log-Linear Model. Mathematics 9(6):645. https://doi.org/10.3390/math9060645

• Cavieres, M.F., Leiva, V., **Marchant, C.**, Rojas, F. 2020. A metho-

dology for data-driven decision making in the monitoring of particulate matter environmental contamination in Santiago of Chile. Reviews of Environmental Contamination and Toxicology 250:45-67. https://doi.org/10.1007/398_2020_4

• Martínez-Flórez, G., Leiva, V., Gómez-Déniz, E., **Marchant, C.** 2020. A family of skew-normal distributions for modeling proportions and rates with zeros/ones excess. Symmetry 12:1439. https://doi.org/10.3390/sym12091439

• Dasilva, A., Dias, R., Leiva, V., **Marchant, C.**, Saulo, H. 2020. Birnbaum-Saunders regression models: A comparative evaluation of three approaches. Journal of Statistical Computation and Simulation 90(14):2552-2570. https://doi.org/10.1080/00949655.2020.1782912

• Poblete, M., Miño, C., **Marchant, C.**, Arancibia, M. 2020. Overload, mistake, lack of training: contributing factors in medication errors in a Chilean public hospital. INDEX 29(3): 112-116. https://bit.ly/35pwb3W

• **Marchant, C.**, Leiva, V., Christakos, G., Cavieres, M.F. 2019. Monitoring urban environmental pollution by bivariate control charts: new methodology and case study in Santiago, Chile. Environmetrics 30:e255. https://doi.org/10.1002/env.2551

• Cysneiros, F.J.A., Leiva, V., Liu, S., **Marchant, C.**, Scalco, P. A. 2019. Cobb-Douglas type model with stochastic restrictions: formulation, local influence diagnostics and data analytics in economics. Quality & Quantity 53:1693-1719. https://doi.org/10.1007/s11135-018-00834-w

• Leiva, V., Aykroyd, R. **Marchant, C.** 2019. Discussion of "Birnbaum-Saunders distribution: A review of models, analysis, and applications" and a novel multivariate data analytics for an economics example in the textile industry. Applied Stochastic Models in Business and Industry 35(1):112-117. https://doi.org/10.1002/asmb.2401

• **Marchant, C.**, Leiva, V., Cysneiros, F.J.A., Liu, S. 2018. Robust multivariate control charts based on Birnbaum-Saunders distributions. Journal of Statistical Computation and Simulation 88(1):182-202. https://doi.org/10.1080/00949655.2017.1381699

• **Marchant, C.,** Leiva, V., Cysneiros, F.J.A. 2016. A multivariate log-linear model for Birnbaum-Saunders distributions. IEEE Transactions on Reliability 65(2):816-827. https://ieeexplore.ieee.org/document/7366614

• **Marchant, C.,** Leiva, V., Cysneiros, F.J.A., Vivanco, J.F. 2016. Diagnostics in multivariate Birnbaum-Saunders regression models. Journal of Applied Statistics 43(15):2829-2849. https://doi.org/10.1080/02664763.2016.1148671

• Leiva, V., **Marchant, C.**, Ruggeri, F., Saulo, H. 2015. A criterion for environmental assessment using Birnbaum-Saunders attribute control charts. Environmetrics 26:463-476. https://doi.org/10.1002/env.2349

• Rojas, F., Leiva, V., Wanke, P., **Marchant, C.** 2015. Optimization of contribution margins in food services by modeling independent component demand. Colombian Journal of Statistics 38:1-30.http://dx.doi.org/10.15446/rce.v38n1.48799

• Leiva, V., Saulo, H., Leão, J., **Marchant, C.** 2014. A family of autoregressive conditional duration models applied to financial data. Computational Statistics and Data Analysis 79:175-191. https://doi.org/10.1016/j.csda.2014.05.016

• Leiva, V., **Marchant, C.**, Saulo, H., Aslam, M., Rojas, F. 2014. Capability indices for Birnbaum-Saunders processes applied to electronic and food industries. Journal of Applied Statistics 41:1881-1902. https://doi.org/10.1080/02664763.2014.897690

• **Marchant, C.**, Bertin, K., Leiva, V., Saulo, H. 2013. Generalized Birnbaum-Saunders kernel density estimators and an analysis of financial data. Computational Statistics and Data Analysis 63:1-15. https://doi.org/10.1016/j.csda.2013.01.013

• **Marchant, C.**, Leiva, V., Cavieres, M.F., Sanhueza, A. 2013. Air contaminant statistical distributions with application to PM10 in Santiago, Chile. Reviews of Environmental Contamination and Toxicology 223:1-31.
https://doi.org/10.1007/978-1-4614-5577-6_1

• Saulo, H., Leiva, V., Ziegelmann, F.A., **Marchant, C.** 2013. A nonparametric method for estimating asymmetric densities based on skewed Birnbaum-Saunders distributions applied to environmental data. Stochastic Environmental Research and Risk Assessment 27:1479-1491.
https://doi.org/10.1007/s00477-012-0684-8

• Leiva, V., Ponce, M.G., **Marchant, C.**, Bustos, O. 2012. Fatigue statistical distributions useful for modeling diameter and mortality of trees. Colombian Journal of Statistics 35(3):349-367. https://bit.ly/3vlSH8w

• Leiva, V., Athayde, E., Azevedo, C., **Marchant, C.** 2011. Modeling wind energy flux by a Birnbaum-Saunders distribution with unknown shift parameter. Journal of Applied Statistics, 38(12): 2819-2838.https://doi.org/10.1080/02664763.2011.570319

ESCI publications:

• Aykroyd, R., Leiva, V., **Marchant, C.** 2018. Multivariate Birnbaum-Saunders Distributions: Modelling and Applications. Risks 6(1),21:1-25.https://doi.org/10.3390/risks6010021

Scopus publications:

• **Marchant, C.**, Leiva., V. 2022. Chilean Journal of Statistics: Thirty eight years generating quality knowledge. Chilean Journal of Statistics 13(1):1-2. DOI: http://soche.cl/chjs/volumes/13/ChJS-13-01-00.pdf

• **Marchant, C.** and Leiva, V. 2021. Chilean Journal of Statistics: A forum for the Americas and the World in COVID-19 pandemic.12(1):1-2. https://soche.cl/chjs/volumes/12/ChJS-12-01-00.pdf

• Leiva, V. and **Marchant, C.** (2020) Confirming our international presence with publications and submissions from all continents in COVID-19 pandemic. Chilean Journal of Statistics 11(2):69-72. https://soche.cl/chjs/volumes/11/ChJS-11-02-00.pdf

• **Marchant, C.** and Leiva, V. 2020. Starting a new decade of the Chilean Journal of Statistics in COVID-19 pandemic times. Chilean Journal of Statistics 11(1):1-2. https://soche.cl/chjs/volumes/11/ChJS-11-01-00.pdf

• Shih Su, Ch., **Marchant, C.** 2020. Level of statistical reasoning of Chilean students of Pedagogy in Mathematics on statistical hypothesis tests. Acta Scientae 23(6), 209-236.

Chapters books:

• **Marchant, C.**, Leiva, V., Saulo, H., Vila, R. 2022. Multivariate methods to monitor the risk of critical episodes of environmental contamination using an asymmetric distribution with data of Santiago, Chile. In Roshni T, Samui P, Tien D, Dookie B, Rahman Khatib K (eds.) Risk, Reliability and Sustainable Remediation in the Field of Civil and Environmental Engineering. Elsevier, Amsterdam, Netherlands, Chapter 20, pp. 359-378. https://doi.org/10.1016/B978-0-323-85698-0.00024-1

• Huerta, M., Leiva, V., **Marchant, C.**, Rodriguez, M. 2020. Partial least squares models and their formulations, diagnostics and applications to spectroscopy. In Xu J, Ahmed SE, Duca G, Cooke FL (eds.) Management Science and Engineering Management. Springer-Verlag, Berlin, pp. 1-25. https://doi.org/10.1007/978-3-030-21248-3_35

• Leiva, V., **Marchant, C.**, Ruggeri, F., Saulo, H. 2019. Statistical quality control and reliability analysis using the Birnbaum-Saunders distribution with industrial applications. In Lio Y, Keung H, Ng T, Tsai T-R, Chen D-G (eds.) Statistical Quality Technologies: Theory and Practice. Springer, New York, pp. 1-33. https://doi.org/10.1007/978-3-030-20709-0_2

• Leiva, V., **Marchant, C.** 2018. A methodology based on multivariate generalized Birnbaum-Saunders models applied to case studies in bio-engineering and industry. In Oliveira T.A., Kitsos,

C., Oliveira, A. and Grilo, L. (eds.) Recent Studies on Risk Analysis and Statistical Modeling. Springer, Switzerland, pp. 283-302. https://doi.org/10.1007/978-3-319-76605-8_22

Research projects:

- Associate researcher Program-Millennium Nucleus Center for the Discovery of Structures in Complex Data.
- Responsible researcher Fondecyt iniciación 11190636 grant "New multivariate models based on Birnbaum-Saunders distributions with applications to air pollution" (2019-2022).
- Responsible researcher in UCM 434220 "Nuevas técnicas de análisis y modelos multivariados basados en la distribución Birnbaum-Saunders con aplicaciones en contaminación" (2018-2019).
- Participation in project Fondecyt regular 1160868 "On new characterizations of cumulative damage models and their applications to contamination, mining and natural catastrophes" dirigido por Dr. Víctor Leiva (2016-2020).
- Participation in project Fondecyt 1120879 "Multivariate and matrix-variate Birnbaum-Saunders distributions: characterization, modeling and diagnostics" directed by Dr. Víctor Leiva (2012-2016).
- Participation in project Fondecyt 1090265 "New families of distributions on the inverse Gaussian model: theory, methodology and application" directed by Dr. Antonio Sanhueza (2009-2013).
- Participation in project Fondecyt 1080326 "Multivariate extensions of the generalized Birnbaum-Saunders distribution and their characterization and applicability" directed by Drs. Víctor Leiva/Antonio Sanhueza (2009-2011).
- Participation in project DIPUV 27-2006 "Regression models with non-normal censored response" directed by Dr. Víctor Leiva/ M.Sc. Enrique Cabrera (2007-2009).
- Participation in project Fondecyt 1050862 "Characterization and applications of a new life distribution based on the elliptic distributions" directed by Dr. Víctor Leiva (2005-2008).

Article review:

- Journal Multivariate Analysis (by Elsevier), impact factor 1.136
- Statistics (by Taylor & Francis), impact factor 0.675.
- REVSTAT Statistical journal, impact factor 0.32.
- Journal of Statistical Computation and Simulation (by Taylor & Francis), impact factor 0.778.
- Journal of Nonparametric Statistics (by Taylor & Francis), impact factor 0.466.
- Journal of Applied Statistics (by Taylor & Francis), impact fac-

tor 0.419

• Stochastic Environmental Research and Risk Assessment (by Springer), impact factor 2.237.

• Communications in Statistics - Theory and Methods (by Taylor & Francis), fimpact factor 0.43.

• Computational Statistics & Data Analysis (by Elsevier), impact factor 1.363.

Talks and posters:

International meeting

• XXIV Simpósio Nacional de Probabilidade e Estatística (SINAPE), Gramado-RS, Brasil 31/07/2022-5/08/2022.

• Simpósio Nacional internacional de Estatística, Barranquilla, Colombia 15-19/07/2019.

• XXII SINAPE, Porto Alegre-RS, Brazil 24-29/07/2016.

• X Workshop on Statistics, Mathematics and Computation, Tomar, Portugal, 26-28/05/2016.

• VI SEEMI, Toledo, Brazil, 16-18/12/2015.

• 60th ISI (International Statistical Institute) World Statistics Congress, Rio de Janeiro, Brazil, 26-31/07/2015.

• International Society for Business and Industrial Statistics (ISBIS) Satellite conference with focus on Quality Control and improvement, Campinas, Brazil, 22-24/07/2015.

• XIII Latin American Congress of Probability and Mathematical Statistics, Cartagena de Indias, Colombia 22-26/09/2014.

• XXI Congreso de Matemática Capricornio, Antofagasta, Chile (2012).

• X CLATSE. Cordoba, Argentina (2012).

• XXI Simpósio Nacional de Probabilidade e Estatística (SINAPE), Natal-RN, Brazil 20-25/07/2014.

• XII Escuela de Modelos de Regresión, Fortaleza, Brazil (2011).

• II Workshop PROSUL. Argentina-Brazil-Chile, Viña del Mar, Chile (2011).

• I Workshop PROSUL. Argentina-Brazil-Chile, Córdoba, Argentina (2010).

• XXV International Biometric Conference, Florianópolis, Brazil (2010).

• III Simposio de Estadística Espacial y Modelamiento de Imágenes (SEEMI), Foz de Iguazú, Brazil (2010).

• IX CLATSE. Viña del Mar, Chile (2010).

• XI Escuela de Modelos de Regresión, Recife, Brazil (2009).

• VIII Congreso Latinoamericano de Sociedades Estadísticas (CLATSE). Montevideo, Uruguay (2008).

Local meeting

• Jornadas de Matemática de la Zona Sur, Concepción, Chile, 2023.

• XLV Jornadas Nacionales de Estadística, San Pedro de Atacama, Chile, 2022.

• Conferencia, III Jornadas de Iniciación Científica, Universidad del Valparaíso, Chile, 2021.

• Ciclo de Seminarios de Estadística, Universidad del Bio-Bio, Chile, 2021.

• Seminario de Estadística, Universidad de Atacama, Chile, 2020.

• Seminario de Estadística, Universidad de Antofagasta, Chile, 2019.

• Primer Simposio de Matemática y Estadística, Copiapo, Chile, 2018.

• Jornadas de Matemática de la Zona Sur, Valdivia, Chile, 2018.

• XLIII Jornadas Nacionales de Estadística, Valparaíso, Chile, 2017.

• II International Workshop on Statistical Models for Business, Engineering and Sciences, Viña del Mar, Chile, 19/10/2015.

• XLII Jornadas Nacionales de Estadística, Concepción, Chile, 14-16/10/2015.

• XXIV Jornadas de Matemática Zona Sur, Pucón, Chile (2011).

• XXXVII Jornadas Nacionales de Estadística, Pucón, Chile (2011).

• XXXVI Jornadas Nacionales de Estadística, Temuco, Chile (2009).

• XVI Semana de la Estadística en Valparaíso, Chile (2008).

Thesis supervision:

• Master thesis: Machine Learning Models to Predict Critical Episodes of Environmental Pollution for PM2.5 and PM10 in Talca, Chile, Gonzalo Carreño, Universidad Católica del Maule, Chile (2022).

• Engineering thesis: Reparametrized Birnbaum-Saunders semiparametric model with varying precision, Marcela Zenteno, Universidad de Valparaíso (2021).

• Engineering thesis: Reparametrized Birnbaum-Saunders partially thin-plate spline model, Catalina Figueroa, Universidad de Valparaíso (2021).

• Engineering thesis: Reparametrized Birnbaum-Saunders partially varying-coefficient model, Michelle Osorio, Universidad de Valparaíso (2021).

• Engineering thesis: Student-t Partially Varyng-Coefficient model with application to pollution data, Nicole Jeldes, Universidad de Valparaíso (2021).

• Engineering thesis: Reparametrized Birnbaum-Saunders semiparametric additive model, Esteban Cárcamo, Universidad de Valparaíso (2021).

• Master thesis: Un modelo multivariado predictivo para modelar contaminación atmosférica por material particulado MP2,5 y MP10 durante un periodo de Gestión de Episodios Críticos en Santiago de Chile, Rodrigo Puentes, Universidad de Chile, Chile (2019).

• Bachelor's thesis: Nivel de conocimiento de docentes de matemática-nivel educación media- en ejercicio de la comuna de Talca, en el área de estadística, específicamente sobre la distribución normal. Universidad Católica del Maule, Chile (2019).

• Master thesis: Estadística con proyectos en probabilidad condicional en formación de profesores, Jonathan Parra, Universidad Católica del Maule, Chile (2019).

• Bachelor's thesis: Nivel de razonamiento estadístico sobre probabilidad condicional obtenido por estudiantes de segundo año medio de la comuna de Talca, al aplicar el método de resolución de problemas y trabajo con proyectos. Universidad Católica del Maule, Chile (2019).

• Bachelor's thesis: Errores que cometen los estudiantes de Pedagogía en Matemática y Computación de la Universidad Católica del Maule al momento de interpretar herramientas gráficas como histogramas y diagramas de caja. Universidad Católica del Maule, Chile (2019).

• Master thesis: Nivel de razonamiento estadístico de los estudiantes universitarios acerca de las pruebas de hipótesis estadísticas, Chia Shi Su, Universidad Católica del Maule, Chile (2018).

• Master thesis: Inventory models and their implementation and application, Miguel Parra Parra, Universidad de Valparaíso (2016).

• Master thesis: Una comparación entre análisis estadísticos basados en muestreos y distribucones de largo sesgado, Macarena Triviño Urtubia, Universidad de Valparaíso (2014).

• Engineering thesis: Índices de capacidad de procesos para distribuciones no normales, Gonzalo Oyanedel Muñoz, Universidad de Valparaíso (2014).

Positions:

- Board of Directors of the Chilean Statistical Society (2020-2023)
- Director of the Statistics Engineering Career, Universidad Católica del Maule (2018-2020)
- Director of the Career of Pedagogy in Mathematics and Computation, Universidad Católica del Maule (2017-2018)

Academic experience:

- Lecturer in Design of Experiments for Engineering in Statistics. Universidad Católica del Maule, Chile (2023)
- Lecturer in Probability Models and Inference for Ingeniería en Estadística. Universidad Católica del Maule, Chile (2020-2022)
- Lecturer in Scientific investigation methodology. Magíster en Didáctica de las Ciencias Experimentales. Universidad Católica del Maule, Chile (2020).
- Lecturer in Statistics applied to health and Advanced Biostatistics. Magíster en Enfermería. Universidad Católica del Maule, Chile (2019-2020).
- Lecturer in Analysis of data for Pedagogía en Matemática y Computación. Universidad Católica del Maule, Chile (2019)
- Lecturer in Problem solving and mathematical modeling. Doctorado en Didáctica de las Matemáticas Universidad Católica del Maule, Chile (2019).
- Lecturer in Data processing and random games. Magíster en Didáctica de las Matemáticas. Universidad Católica del Maule, Chile (2019).
- Lecturer in Introduction to data analysis for Ingeniería en Estadística. Universidad Católica del Maule, Chile (2019)
- Lecturer in Data processing and random games. Magíster en Didáctica de las Matemáticas. Universidad Católica del Maule, Chile (2018).
- Lecturer in Statistics and methodology of scientific research. Magíster en Didáctica de las Ciencias Experimentales. Universidad Católica del Maule, Chile (2018).
- Lecturer in Problem solving and mathematical modeling. Doctorado en Didáctica de las Matemáticas Universidad Católica del Maule, Chile (2018).
- Lecturer in in Statistics II for Pedagogía en Matemática y Computación. Universidad Católica del Maule, Chile (2018)
- Lecturer in Analysis of data for Pedagogía en Matemática y Computación. Universidad Católica del Maule, Chile (2018)

• Lecturer in Data processing and random games. Magíster en Didáctica de las Matemáticas. Universidad Católica del Maule, Chile (2017).

• Lecturer in Statistics and methodology of scientific research. Magíster en Didáctica de las Ciencias Experimentales. Universidad Católica del Maule, Chile (2017).

• Lecturer in Statistics I for Pedagogía en Matemática y Computación. Universidad Católica del Maule, Chile (2017)

• Lecturer in Statistics II for Pedagogía en Matemática y Computación. Universidad Católica del Maule, Chile (2017)

• Lecturer in Applied Statistics for career of Bachelor of Science majoring biology or chemistry. University of Valparaíso, Valparaíso, Chile (2012).

• Lecturer in Nonparametric Statistics for the career of Engineering in Statistics. University of Valparaíso, Valparaíso, Chile (2012).

• Lecturer in Operations Research, Design of Experiments and Quality Control for the career of Engineering in Statistics. University of Valparaíso, Valparaíso, Chile (2009-2012).

• Lecturer in Sampling and Design of Experiments for the career of Engineering in Statistics. University of Playa Ancha, Valparaíso, Chile (2011-2012).

• Lecturer in Descriptive and Inferential Statistics for the career of Geography, Environmental Engineering and Civil Engineering Informatics. University of Playa Ancha, Valparaíso, Chile (2011-2012).

• Assistant lecturer in Statistical Inference, Operational Research and Quality Control in the career of Engineering in Statistics. University of Valparaíso, Valparaíso, Chile (2007-2008).

• Assistant lecturer in Biostatistics in the career of Environmental Engineering. University of Valparaíso, Valparaíso, Chile (2007).

• Assistant lecturer in Probability and Statistics in the career of Civil Engineering Informatics. University of Valparaíso, Valparaíso, Chile (2007).

Consulting experience:

• Consultant statistician of the study “Estudio descriptivo del perfil socio-familar de los internos participantes del programa visita intima del complejo penitenciario de Valparaíso”. Valparaíso, Chile (2011).

• Consultant statistician of the study “Acción del hipoclorito de sodio sobre la adhesión en el tercio medio radicular”. Valparaíso, Chile (2008).

• Consultant statistician of the study “Conocimientos y opiniones de los jóvenes de Rapa Nui”. Valparaíso, Chile (2008).

• Consultant statistician of the study “Turismo de observación de cetáceos: contribución a su desarrollo en el área del Corcovado, Chiloé”. Valparaíso, Chile (2008).

Work experience:

• Full time academic in the Department of Mathematics, Physics and Statistics, Faculty of Basic Sciences, Universidad Cat ’o lica del Maule (2017 -) • Statistician of the Section of Statistics of the Court of Appeals of Valparaíso, Chile (2011).

Foreign Languages:

• Spanish (native language).

• English intermediate level.

• Portuguese high level.

Software:

• Management of language of object-oriented programming.

• Management of the majority of the statistical software.

• Management of database and data mining.

Scholarships and awards:

• Average score in primary school: 6.9 in scale of a 1.0 to 7.0 (1991-1998).

• “President of the Republic” scholarship of the Chilean government during all the secondary school with average score of 6.8 in scale of a 1.0 to 7.0 (1999-2002).

• “President of the Republic” scholarship of the Chilean government during all career of Engineering in Statistics with a score of entering to Engineering in Statistics of 742 points and final average score of the career of 5.8 in scale of a 1.0 to 7.0 (2003-2008).

• “Advanced Human Capital” scholarship of the National Commission for Scientific and Technological Research (Conicyt) of the Chilean government for studies of Master in Statistics in University of Valparaíso. Final average score of the career of 6.4 in scale of a 1.0 to 7.0 (2009-2010)

• “Foundation for Science and Technology of Pernambuco (FACEPE)” scholarship for studies of Ph.D. in the Federal University of Pernambuco, Brazil (2013-2014).

• “Becas Chile” scholarship of Conicyt of the Chilean government for studies of of Ph.D. in the Federal University of Pernambuco, Brazil (2014-2016).

• “International Statistical Institute-World Bank” grant for attending the international conference CLAPEM in Cartagena de In-

dias, Colombia (2014)

• "American Statistical Association-Associação Brasileira de Estatística" grant for attending the 60th ISI World Statistics Congress 2015, Rio de Janeiro, Brazil (2015).

Others:

• Member of R-Ladies.

• Member of the Brazilian Statistical association (ABE).

• Par evaluator of the Postgraduate Area of the National Accreditation Commission, 2019-present.

• UCM Ambassador, 2019-present.

• President of the center of students of Engineering in Statistic of the University of Valparaíso (2007-2009).

—Updated to March 2023—