# Gian Carlo Di-Luvi

# Curriculum Vitae

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# Formal Education

2019 MSc in Statistics, University of British Columbia (UBC), Vancouver, Canada.

-Present

2013 – 2017 **BSc in Applied Mathematics**, Instituto Tecnológico Autónomo de México (ITAM), Mexico City.

Thesis: Bayesian Design of Experiments for Generalized Linear Models.

Thesis supervisor: Dr. Ernesto Barrios Zamudio.

## Academic Distinctions and Awards

2019 - 2020 International Tuition Award; UBC; \$3200 CAD.

2019 Honorary Mention in the XXIV ITAM Alumni Research Awards.

2018 Graduated summa cum laude from my undergraduate degree.

2013 - 2017 GPA in the top 1% of my undergraduate cohort.

2013 - 2016 75% scholarship at ITAM.

## Research Interests

- o Gaussian process regression and statistical emulation.
- o Computational statistics (MCMC and generalizations like parallel tempering).
- Bayesian design of experiments.
- o Probability theory (sufficiency, exchangeability, other types of symmetry).
- Applications of statistics in health (e.g. epidemiology) and social sciences (e.g. quick counts in general elections).

## Academic Positions

Sep. 2019 Research Assistant, Department of Statistics, UBC.

-Present I work under Prof. Nancy Heckman in the Flexible Learning project, an initiative to promote and optimize statistical teaching in Canada.

Sep. 2019 **Teaching Assistant**, Department of Statistics, UBC.

−Present ∘ STAT 302 Introduction to Probability.

o STAT 203 Statistical Methods.

o STAT 200 Elementary Statistics for Applications.

Jan. 2017 Editor in Chief, Laberintos e Infinitos, ITAM.

-Dec. 2017 As editor in chief of Laberintos e Infinitos, ITAM's Mathematics' student journal, I led a 10-people team; during my tenure, three numbers were published and the fifteen-year anniversary of the journal was successfully celebrated.

2015 – 2016 **Editor**, Laberintos e Infinitos.

- Jan. 2017 Undergraduate Faculty Member, Department of Mathematics, ITAM.
- -Jun. 2017 The Undergraduate Faculty of the Department of Mathematics selects senior students of academic excellence to tutor and answer questions from younger students about any of the courses offered in the Applied Mathematics BSc.
- Jan. 2016 **Teaching Assistant**, Department of Statistics, ITAM.
- -Dec. 2016 EST-14102 Probability Calculus II.
  - o Multivariate random variables and probability distributions.
  - o Sequences of random variables and types of convergence.
  - o Law of large numbers and Central Limit Theorem.

# Scholarly Activities

#### **Publications**

- o Di-Luvi, G. C. (2019). How does it make you feel? Significance, 16(3), 26-29.
- o Di-Luvi, G. C., Mendoza, M., and Orantes, G. (2018). Statistics in the 2018 Mexican general election quick counts. *Laberintos e Infinitos, 48*, 29-37.
- Di-Luvi, G. C. (2018). Bayesian Design of Experiments. Laberintos e Infinitos, 46, 43-50.
- Di-Luvi, G. C. (2017). Generalized Linear Models: A Bayesian Perspective. Laberintos e Infinitos, 45, 36-45.
- Di-Luvi, G. C. (2017). Decision Theory and Bayesian Statistics. Laberintos e Infinitos, 44, 6-13.
- o Di-Luvi, G. C. and López Portillo, R. (2016). Epidemiological modeling using dynamical systems. *Laberintos e Infinitos*, 42, 34-41.
- o Alvarado, C., Di-Luvi, G. C., and Espinosa, D. (2016). The Metropolis-Hastings Algorithm. *Laberintos e Infinitos*, *41*, 21-30.

## **Conference Presentations**

- o Di-Luvi, G. C. (Dec. 2019). *Quick counts in the 2018 Mexican general election.* Winter 2019 SFU/UBC Joint Statistics Seminar.
- Di-Luvi, G. C. (Nov. 2018). Statistics in the 2018 Mexican general election quick counts. ITAM's Mathematics Colloquium, Mexico City.
- Di-Luvi, G. C. (Oct. 2017). Generalized Linear Models. ITAM's Mathematics Colloquium, Mexico City.

#### **Others**

Sept. 2019 Co-organizer of the UBC Statistics Graduate Students' Seminars. —Present

# Professional Experience

#### 2016 -2019 Business Analytics Coordinator, Pfizer, Mexico City.

I developed data-driven models and analyses to discover business insights. These are usually presented to directors and managers with little to no formal statistical training.

2018 Quick Counts Committee Advisor, Mexico's National Electoral Institute (INE), Mexico City.

The INE formed a nine-member and twelve-advisor committee to carry out quick counts for the 2018 Mexican general election. I worked as committee member Dr. Manuel Mendoza's advisor. We improved his original Bayesian model, defined the sampling design used in Chiapas, and I developed the code for generating the official federal report.