

# Vilma Susana Romero Romero

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## Education

- 2014 – 2015 **M.Sc. in Statistics**, *Lancaster University*, United Kingdom, **Merit (69%)**.  
Dissertation Title: “Longitudinal Multidimensional Item Response Modelling in Preschool Children’s Mental State Understanding”. **Distinction (74%)**
- The thesis comprised the analysis of the responses to false belief tests performed by 3 years old children in order to identify relevant latent factors related to the ability of attributing thoughts and beliefs to others. Subsequently, the evolution of these factors was analyzed in a bayesian framework and a causal diagram was obtained.
  - Core modules: Likelihood Inference, Generalised Linear Models, Bayesian Inference, Computational Intensive Methods, Statistics in Practice (R/SAS/Scientific Writing).
  - Optional modules: Extreme Value Theory, Longitudinal Data Analysis, Survival and Event History Analysis, Environmental Epidemiology, Genomics.
  - Master accredited by The Royal Statistical Society, United Kingdom.
- 2013 – 2014 **Statistical Engineer Professional Title**, *National University of Engineering*, Lima-Peru.  
Thesis Title: “Identifying prey capture attempts using accelerometry data in South American Fur Seals”. **Dissertation grade: 19/20**
- Degree obtained after dissertation, thesis conducted in collaboration with the Peruvian Institute of Marine Research (IMARPE) and the French Research Institute for Development (IRD).
  - Study of the South American Fur Seal feeding behaviour by the detection of prey capture attempts in the accelerometry signals trough an analysis of time and frequency based on the Continuous Wavelet Transformation. Then, the dive success (at least one prey capture attempt) was modeled considering its features by a Logistic Regression.
- 2008 – 2012 **B.Sc. with a major in Engineering Statistics**, *National University of Engineering*, Lima-Peru, **Placement: A+, First place**.
- 5-year program of training in the mainstream statistical topics. Main modules: Linear Models, Multivariate Analysis, Time Series, Computational Statistics, Regression Analysis, Databases, Statistical Quality Control.

## Complementary Education

- Nov 2016 **Course**, *Business Intelligence*, Central Office of University Quality, National University of Engineering, Lima-Peru.
- May–Jun 2013 **Course**, *Ecology and Behaviour of Marine Top Predators*, Master Program in Marine Sciences, Peruvian University Cayetano Heredia, Lima-Peru.
- Jan–Feb 2013 **Virtual Course**, *Computing for Data Analysis*, Ph.D. Roger D. Peng, Johns Hopkins Bloomberg School of Public Health, Achievement with distinction - Coursera.
- Nov 2012 **Course**, *Data Mining*, Data Mining Consulting, Lima-Peru.

- Oct 2011 **Course**, *SQL Server for Data Analysis*, Data Mining Consulting, Lima-Peru.
- Sep 2011 **Course**, *Conjoint Analysis*, XIII National Congress of Statistical Students - I Latin American Congress of Statistical Students, Cusco-Peru.
- Feb–May 2011 **Course**, *Microsoft SQL Server 2008 Database Administrator*, Cibertec, Lima-Peru.

## Experience

### Work Experience

- Apr–Nov 2016 **Research Project Collaborator**, *French Research Institute for Development (IRD)*, Callao-Peru.  
Identifying behavior patterns of seabirds from their trajectories obtained from radar images captured during campaigns tuna boats.
- Dec 2015 – **Analyst of Models**, *Interbank*, Lima-Peru.  
Mar 2016 Support in the replicas and analysis of predictive models for the different products of Interbank such as Credit Card, ExtraCash, Salary Account and Millionaire Account.
- Jun 2014 – **Package Developer in R**, *IMARPE*, Chucuito-Callao.  
Sep 2014 Contribution on the development of *ImarpeTools Package* which automates the preparation of graphs and tables used in the routine technical reports of IMARPE.
- Jan 2013 – **Research Assistant**, *French Research Institute for Development (IRD)*, Callao-Peru.  
May 2014
  - Prediction of foraging areas for Black Guillemots on Cooper Island, Alaska. Study made in collaboration with the Nonprofit Scientific Organization “Friends of Cooper Island”.
  - Study of the South American Fur Seal feeding behaviour by the analysis of accelerometry data employing spectral analysis (wavelets) and statistical techniques. Project made in collaboration with the Peruvian Institute of Marine Research.
- May 2012 – **Actuarial Intern**, *Pacifico Insurance Company*, Lima-Peru.  
Dec 2012
  - Support in the analysis of the behaviour of the business lines of Annuities and SCTR (Supplementary Insurance of the Worker at Risk).
- ### Teaching
- Jun 2017 – **Instructor**, *SEUPROS-FIEECS, National University of Engineering*, Lima-Peru.  
Today In charge of the module “**Data Analysis Advanced**” in the First Specialization Program in Business Intelligence & Business Analytics.
- Mar 2017 – **Lecturer**, *National University of Engineering*, Lima-Peru.  
Today In charge of two undergraduate mandatory courses at the Statistical Engineering School: Statistics II and Computing II.
- Aug–Dic 2016 **Lecturer**, *National University of Engineering*, Lima-Peru.  
In charge of two undergraduate courses at the Statistical Engineering School: Computing II (Mandatory) and Biostatistics (Elective).
- Jul 2016 **Instructor**, *Institute of Planning and Statistical Studies (IPLE)*, Lima-Peru.  
In charge of the In-House Training on “**Data Mining using R**” addressed to the analytical team of Human Resources of Peru Credit Bank (BCP).
- 15 Sep 2014 **Instructor**, *Peruvian Institute of Marine Research*, **Knitr: Dynamic Reports in R**.
- 17 Jul 2014 **Instructor**, *Peruvian Institute of Marine Research*, **Introduction to L<sup>A</sup>T<sub>E</sub>X**.
- Mar 2014 **Instructor**, *Peruvian Institute of Marine Research*, **Data Analysis in R**.
- Apr–Jul 2011 **Teaching Assistant**, *Bayesian Statistics Course*, National University of Engineering.

Nov 2009 – **English Teacher**, ICPNA - English Institute.

Feb 2010 Saturday English Program for Parents.

### Field Work

Nov 2013 **Volunteer**, Guano Island Pescadores, Lima-Peru.

- Support in the scientific activities of the Project TOPINEME "Top Predators as Indicators of Exploited Marine Ecosystem dynamics" led by IRD.

### Computer skills

<b>Statistical Software</b>	R, SAS, OpenBUGS, SPSS, Minitab	<b>Databases</b>	SQL Server at query level, PL-SQL, Microsoft Access
<b>Office</b>	Microsoft Excel, Word, Power Point	<b>Others</b>	Latex, Matlab, Python, Visual Basic

### Languages

Spanish	<b>Fluent</b>	<i>Native language</i>
English	<b>Advanced, TOEFL 100, IELTS 7</b>	<i>Listening, reading, writing, speaking</i>

### Academic Awards

Aug 2014 **International Master Scholar**, *Beca Presidente de la República 2014-II*, PRON-ABEC (Peruvian Government), Lima-Peru.

Full scholarship to pursue Master studies at Lancaster University (Top 400 university).

Apr 2014 **Scholar**, *BCP-ProUNI Scholarship*, National University of Engineering, Lima-Peru. 20,000 USD Scholarship to pay for postgraduate studies.

Sep 2012 **First Place**, *Scientific Initiation Contest of the XIV National Congress of Statistical Students*, UNMSM, Lima-Peru.

*"Methodology for estimating process capability indices in non-normal data"*

Jul 2012 **First Place**, *Scientific Initiation Contest of the II Latin American Congress of Statistical Students*, Metropolitan Technological Institute, Medellin-Colombia.

*"Methodology for estimating process capability indices in non-normal data"*

Jul 2012 **Second Place**, *Knowledge Contest of the II Latin American Congress of Statistical Students*, Metropolitan Technological Institute, Medellin-Colombia.

Dec 2011 **Distinction**, *Manuel Pardo and Lavalle President for Academic Merit*, The Board of Trustees of the National University of Engineering.

Sep 2011 **First Place**, *Knowledge Contest of the XIII National Congress of Statistical Students - I Latin American Congress of Statistical Students*, UNSAAC, Cusco-Peru.

### Publications

Chacon E., Romero V., Quispe L., Camero J. (2014). Methodology for estimating process capability indices in non-normal data, Scientific-Technical Magazine of the Research General Institute of the National University of Engineering, 24(1):43-52.

### Conference Attendance

Jan 2017 RStudio Conference 2017, Kissimmee, Florida-USA.

- Jul 2012 II Latin American Congress of Statistical Students, Metropolitan Technological Institute, Medellin-Colombia.
- Sep 2011 XIII National Congress of Statistical Students - I Latin American Congress of Statistical Students, Cusco-Peru.

## Extracurricular Activities

- 2016 Interpreter for the three day ABET accreditation process for the Statistical Engineering School at the National University of Engineering.
- 2015 Honorary Speaker at the Academic Event "Statistician Day", National University of Engineering, Lima-Peru. Master Thesis exhibition.
- 2014 Presenter in the IV Congress of Peruvian Marine Sciences, Lima-Peru. Undergraduate Thesis exhibition.
- 2010 Pollster in the research project "Opinion Survey for Municipal Elections 2010", by IECOS-UNI.
- 2009 Collaborator in the organization of the Scientific Event for "Statistician Day", National University of Engineering.
- 2006 Pax Student Exchange Program (January-June 2006), John Edwards High School. Port Edwards, Wisconsin-USA.

## Personal References

### Dr. Christopher Sherlock

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### Dr. Yann Tremblay

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Lima, July 6, 2017