Evelyn Patricia Gutiérrez Ayala

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Education

2019–Today **Ph.D. Candidate in Engineering**, Pontificia Universidad Católica del Perú (Pontifical Catholic University of Peru, PUCP), Lima-Peru in cotutelle with Université d'Orléans (UO), Orléans-France.

- **Thesis project:** "*Chronic wound monitoring based on thermal and color images from a portable device*," under supervision of **PhD. Benjamín Castañeda** (PUCP) and **PhD. Sylvie Treuillet** (UO)

2015–2016 **M.Sc. in Statistics**, Pontificia Universidad Católica del Perú (Pontifical Catholic University of Peru), Lima, Peru.

- **M.Sc. Thesis:** "*Estimation of the disease prevalence when diagnostic tests are subject to classification error: Bayesian Approach*", under supervision of **PhD. Giancarlo Sal y Rosas**

2006–2011 **B.Sc. in Science with a major in Statistical Engineering**, Universidad Nacional de Ingeniería (National University of Engineering), Lima, Peru, **Placement: A+, First place**.

Teaching Experience

2017 - Today **Lecturer**, Pontifical Catholic University of Peru, Lima, Peru.
In charge of the theory, practice and laboratories hours of the following undergraduate courses:

- **Semester 2020-II:** 1IBM18 Profesional Development in Bioengineering 2
- **Semester 2019-I:** EST218 Statistics for engineering (Theory and practice)
- **Semester 2018-I:** 1INF07 Numerical Experimentation (Theory and practice)
- **Semester 2017-II:** 1INF07 Numerical Experimentation (Theory and practice)

Aug, 2019 - Sept, 2019 **Instructor**, Pontifical Catholic University of Peru, Lima, Peru.
Specialization program: Diploma in Applied Statistics

- **Basic statistical procedures**, in SPSS

Jun, 2018 - Aug, 2018 **Instructor**, PeruStat, Lima, Peru.
In charge of the theory and practice in R.

- **Data Analysis with R**

2015–2017 **Teaching Assistant**, Pontifical Catholic University of Peru, Lima, Peru.

- **Semester 2017-I:** 1EST10 Introduction to statistics and probability
- **Semester 2016-II:** EST225 Regression analysis
- **Semester 2015-I:** EST145 Statistics

Research Experiences

Oct, 2019 – Aug, 2020 **External Researcher**, Université d'Orléans, PRISME, under supervision of PhD Sylvie Treuillet.

- Reseach work for the H2020-MSCA-RISE STANDUP project which proposes to develop a mobile, user-friendly, accurate and low-cost system to detect diabetic foot problems at an early stage and better prevent and cure ulcers.
- In charge of the data acquisition at the Regional Hospital of Orléans.

Aug, 2019 – Mar, 2020 **Research assistant**, Pontifical Catholic University of Peru, Medical Image Laboratory, under supervision of PhD Benjamín Castañeda.

- Planning and organization the acquisition protocol and data analysis in the biomedical study: Research on tissue characterization methods using quantitative ultrasound techniques.
- Development of tools (software) for data analysis and visualization and collaboration in research paper writing.

Consultancy and Professional Experience

Mar, 2015 - Oct, 2018 **Data Scientist/Modelling Specialist**, *Modelling Team*, LenddoEFL (EFL-Global S.A.C.), Lima, Peru.

Highlighted contribution:

- Creation of various predictive models, from simple statistical models to machine learning models, using psychometric, metadata, geolocation data and unstructured data sources: email, SMS, mobile and android data.

Jan, 2014 - Mar, 2015 **Consulting Analyst**, *Analytics and Data Mining Team*, Business Analytics S.A.C., Lima, Peru.

Highlighted contribution:

- Predictive modeling and data analysis for different projects using big data and geolocation data.

Sep, 2011 - Dec, 2013 **Credit Risk Analyst**, *Analytics Team*, Entrepreneurial Finance Lab EFL-Global S.A.C., Lima, Peru.

Highlighted contribution:

- Descriptive data analysis, reporting and automatizing of data extraction, cleaning and validation.

Publications

- Gutierrez E., Castañeda B., Treuillet S, (2020) "Correction of Temperature Estimated from a Low-Cost Handheld Infrared Camera for Clinical Monitoring" *Correction of Temperature Estimated from a Low-Cost Handheld Infrared Camera for Clinical Monitoring*, Advanced Concepts for Intelligent Vision Systems (Vol. 12002, pp. 108–116). Springer International Publishing
- Naemi, R., Romero Gutierrez, S. E., Allan, D., Flores, G., Ormaechea, J., Gutierrez, E., Casado-Pena, J., Anyosa-Zavaleta, S., Juarez, M., Casado, F., Castaneda Aphan, B, (2020) *Diabetes Status is Associated With Plantar Soft Tissue Stiffness Measured Using Ultrasound Reverberant Shear Wave Elastography Approach*, Journal of Diabetes Science and Technology

Conference Presentations, Invited Talks, and Posters

Feb 2020 **Conference presentation**, *'Correction of Temperature Estimatedfrom a Low-Cost Handheld Infrared Camera for Clinical Monitoring'*, Presentation at ACIVS Conference, Auckland-New Zealand.

Jun 2019 **Poster**, *'Estimation of the disease prevalence when diagnostic tests are subject to classification error: bayesian approach'*, Presentation at Latin American Bayesian Congress (COBAL), Lima-Peru.

Academic Awards

2019 **Scholar**, *Scholarship Paul Rivet 2019*, Academic Direction of Institutional Relations (DARI) of the Pontifical Catholic University of Peru
12,000 EUR to finance participation in the doctoral program.

2016 **Scholar**, *Graduate Student Research Support Program*, Research Management Direction (DGI) of the Pontificia Universidad Católica del Perú
10,000 PEN incentive for specialized research and to stimulate the elaboration of high academic level master theses.

2010 **Distinction**, *Manuel Pardo and Lavalle President for Academic Merit*, The Board of Trustees of the National University of Engineering
Award to the best students in each of the disciplines offered by the University..

Computer Skills

- **Data Analysis:** R, Python and Stata, OpenBUGS and SPSS
- **Database management:** SQL, PostgreSQL, MongoDB, and MS Excel.
- **Others:** Latex, Matlab, Visual Basic, MS Office.

Languages

- **Spanish:** Native Speaker
- **French:** Upper Intermediate
- **English:** Proficient in spoken and written english