Romy Elena Rodríguez-Ravines PhD

Advanced Analytics Expert | Business Consultant and Lecturer

Madrid, Spain
+34 601 73 68 98
E-mail: reravines@gmail.com
Personal website: https://ravinesromy.org
LinkedIn: www.linkedin.com/in/ravinesromy
Twitter: @RavinesRomy
Spanish, English, Portuguese

About me

I am passionate about the **application of data science to the industry**. I believe that strong technical foundation and extensive consulting experience are key ingredients in extracting and monetizing the value of data.

I have over 20 years of experience in Business Consulting based on **Advanced Analytics**. I work on projects and products that **transform data into actionable knowledge** for decision-making. I have developed E2E solutions for multinational corporations in multiple business areas. My fields of expertise include Machine Learning, Artificial Intelligence, Business Intelligence, Econometrics and Bayesian Statistics. I have experience in leading highly performant, multidisciplinary and multicultural teams. I'm Dr.Sc. in Statistics, author of articles in scientific journals. I collaborate with some Universities and Business Schools.

Self-motivated, fast and self-learner, creative thinking and good communications skills are part of my professional profile.

Experience

Professional experience in Spain, Brazil and Peru. Working as consultant for public and private sectors. Responsible for designing solutions that put together: business strategy, technical viability and available talent. Solutions based on the correct and innovative application of data science to business challenges, supporting digital transformation and the usage of artificial intelligence. Ease of creating work teams and promoting professional careers. Ease to manage projects and customer communication. Content creator and speaker at international events.

Communications (in Spanish)

- Big Data to Action 2018: "¿Qué es Big Data? Le preguntamos a Twitter"
- Smart Data Summit 2018: "In-Scoring, Machine Learning y Big Data al servicio de la Puntuación Inteligente"
- MSMK 2019: "Mirar hacia atrás para impulsar el futuro. Analítica Avanzada y Previsión de Demanda"
- Cipefa 2020: "Bayesian Topic Modelling: Clustering for High-Dimensional Categorical Data applied to Text Analytics"

Papers published in:

Computers & Operations Research (2014), *PLOS Neglected Tropical Diseases* (2014, 2008), *Computational Statistics* (2013), *Climate Research* (2009), *Journal of Hydrology* (2008), *Applied Stochastic Models to Business and Industry* (2006)

Romy Elena
Rodríguez-Ravines
LinkedIn
Website
Twitter
601 73 68 98
Madrid, Spain

Work Experience

 Madrid, Spain

DeNexus
03/2021 – now (FT)

Head of Research and Modeling Strategies

DeNexus is the leading provider of cyber risk quantification solutions for ICS/OT organizations, global insurers, and (re)insurers. Its mission is to build the global standard of industrial cyber risk quantification for insurance agencies, shareholders, investors and boards.

As **Modeling Specialist** I am responsible for proposing, building and maintaining the mathematical modeling system that quantifies risk. DeRISK is the SaaS product offered by DeNexus. The modeling system combines expert knowledge elicitation, Bayesian inference, numerical simulation and optimal decisions under uncertainty

Avanade
09/2019 – 06/2020 (FT)

Group Manager of Advanced Analytics

Avanade is an innovative leader in digital and cloud services, business solutions and design-led experiences via **Microsoft** technology.

Group Manager de Advanced Analytics in the *Data and Artificial Intelligence Market Unit*, in charge of the definition and development of solutions that generates value for data-driven companies by means of machine learning and artificial intelligence. The role involves the design of hypothesis and analysis approaches, model formulation, results interpretation, and prescriptive recommendations for how to use the data and models created to guide actionable business-decision making

Examples of led initiatives at Avanade:

- </> *Knowledge Mining* and *AI Builder* using *Cognitive Services, Azure Search & Power Apps*: *Knowledge Finder* for the automotive sector and innovation in the ventilation equipment industry.
- </> Document analysis with *Text Mining*: Supervised classification of incidents received in the inbox of a help desk and Unsupervised classification of incidents received in an insurer's call center.
- </> Preparation of Technical Proposals and Training Workshops about *Dynamics 365 Customer Insights*, the use and integration of *Azure Machine Learning Services* in other systems and *MLOps: Machine Learning Operations*.
- </> Preparing virtual event on Knowledge Mining with Microsoft Spain.

Innova-tsn
10/2017 – 08/2019 (FT)

Senior Manager of Advanced Analytics

Innova-tsn pursues customised solutions to deliver new and innovative ideas with a clear goal: provide the Clients with competitive advantages to assist their decisions. In other words, Innova-tsn helps companies in their decision-making processes, to turn decisions into actions with a real impact on their results. Innova-tsn offers complete, goal-driven solutions in the areas of System Architecture, Data Engineering, Customer Intelligence, Business Discovery and Advanced Analytics.

Manager de Advanced Analytics collaborating with all departments at Innova-tsn in all the activities with an analytic component. In charge of generating and leading best practices around the application of machine learning and modelling to different sectors and business problems. Responsible for building solutions, describing commercial proposals, providing guidelines to develop key projects, leading communication with clients, participate in marketing actions, personnel selection, support team professional growth and collaborate with the laboratory of innovation.

Examples of led initiatives at Innova-tsn:

- </> *Voice of Customer* and *Customer Experience* applying *Text Analytics* (Topic Modelling and Sentiment Analysis).
- </> Demand of Airline Transportation, Audience per Advertising Block in TV and Units of a drug required per hospital (Classification of Time Series, *Demand Forecasting* using Statistics and Machine Learning algorithms).
- </> Customer *Churn Predictive Models* (using Classification algorithms).
- </> Methodology for *diagnosing and monitoring predictive models*.
- </> Marketing and Business Development. Preparing documents on the application of advanced analytics to different sectors and describing the technical solution of the proposals and / or responses to RFPs. Some communications: Big Data to Action 2018, Smart Data Summit 2018

Romy Elena Rodríguez-Ravines
LinkedIn 🔗
Website 💻
Twitter 🐦
601 73 68 98 📞
Madrid, Spain 🏠

Bayes Forecast

02/2008 − 09/2017 (FT)

Chief Knowledge Officer

Bayes Forecast is specialist in data treatment and organization from various sources, as well as in the creation and development of modelling systems, which use business knowledge and provide accurate forecasts that have a huge impact on strategic decisions: they maximize the profitability of investments, minimize costs, optimize inventories, retain and win customers, create new products, etc.

Working positions held at Bayes Forecast:

- `</>` **Chief Knowledge Officer**: Managing the documentation and controlling the management of knowledge acquired over more than 25 years of experience. Specifically, managing the information and sources of all the Use Cases (projects implemented, proposals presented, etc.) and activities related to Bayes School (courses, talks, etc). In charge of the contents of the web page published in February, 2017.
- `</>` **Developer of the (commercial) channel Microsoft**: Managing and developing the relationship between Bayes and Microsoft. Preparing technical proposals for business opportunities identified by Microsoft. Addressing initiatives across ISVs launched by Microsoft and attending communications and activities organised by Microsoft for demand generation.
- `</>` **Academic Dean of Bayes School**. Organising training actions both internal and requested by Clients. Designing contents adapted to Customer requirements. Developing and organising theoretical and practical contents. Teaching. Evaluating professors and courses qualities with surveys.
- `</>` **Production Department Sub-Director**. Managing the allocation of human resources, monitoring the projects progress, controlling its profitability. Ensuring the coordination between different Departments: Systems Engineering, Modelling, Products, R&D, and Customer Service. Suggesting technological development (innovating) with the aim of increasing teams and processes efficiency.
- `</>` **Pre-Sales Director**. Link between the Commercial Department and the Production Department. Suggesting technical solutions that meet business issues described by each Customer to the Account manager. Preparing technical proposals and attending preparation meetings and defending them. Directing and executing Proofs of concept.
- `</>` **Quality and Communication Director**. Guaranteeing the quality of production: supervising the performed analyses and the applied techniques, as well as suggesting changes and innovations. Ensuring effective communication of project results by reviewing the correct use of the Customer business language. Advising Account and Project Managers in the communication of technical results and in the development of deliverables.
- `</>` **Account Manager**. Guaranteeing the correct development and quality of all projects of the Account. Detection of business opportunities in the Customer. Preparation and presentation of commercial proposals. Organising meetings and communicating results, adapting ourselves to the different levels of the Customer organisation.
- `</>` **Project Leader**. Leading modelling teams and coordinating them with technology ones. Managing times and human resources dedicated to the projects. Supervising data analysis and applying modelling techniques and algorithms. Controlling the quality of deliverables. Providing Customer Service: communicating the Project progress and risks, results and advice on the exploitation of the delivered systems.
- `</>` **Sr. Modelling Analyst**. Developing and interpreting statistical - dynamic and Bayesian - models with the aim of understanding and forecasting the demand. Advising Clients in the exploitation of their data and developing modelling systems for decision-making.

Examples of led initiatives at Bayes Forecast:

- `</>` Marketing Mix Models, Behavioural segmentation for customer loyalty (*Retail*), Customer propensity to complain, Forecasting demand for new products (*Telecommunications*), Cost-predictive modelling (*Technology*), Predictive models in retail banking, High-income customer churn, Risk of default in consumer credit, Acquisition of investment products, Probability of credit card fraud, Bank teller optimization, Debt collection, Increasing success rate for cross-selling activities (*Banking*)

Romy Elena Rodríguez-Ravines
LinkedIn 🔗
Website 🖥
Twitter 🐦
601 73 68 98 📞
Madrid, Spain 🏠

Universities & Business Schools
06/2004 – Now   (PT)
Invited Lecturer

- </> **Antonio de Nebrija University**. BD in Economics and International Business. Courses: *Econometrics I* (EN) and *Econometrics II*
- </> **Carlos III University (UC3M)**. Master in *Statistics for Data Science*.
- </> **Rey Juan Carlos University (URJC)**. Master in *Data Science*.
- </> **International Centre for Financial Education (CIFF)** in Alcalá de Henares University (UAH). Master in Big Data and Business Analytics (Specializations: Finance and Marketing). Course: *Bayesian and Dynamic Models: applications to Marketing*.
- </> **EAE Business School**. Master in Business Intelligence and Technology Innovation. Course: *Data Analytics & Visualizations II*.
- </> **Universitat Politécnica de Catalunya (UPC)** . Master's degree in Statistics and Operations Research. Course *Big Data and Statistics*.

📍 Rio de Janeiro, Brazil

Oswaldo Cruz Foundation
01/2004 – 12/2007   (PT)
Postdoctoral Research Fellow

- </> 01/2007–12/2007. **National School of Public Health (ENSP)**. *Forecasting the number of cases and modelling the transmission of dengue and leptospira*.
- </> 06/2004–02/2006. **Programa de Mudanças Ambientais Globais e Saúde (PMAGS)**. *Analysis of vulnerability to Climate Change in Brazil*.

Federal University of Rio de Janeiro
1/2001 – 12/2006   (PT)
Graduate Teaching Assistant

- </> 2001. *Time Series Modelling (IM - Bachelor's degree)*.
- </> 2003. *Probability Calculation and Bayesian Hierarchical Models (IM - Master's degree)*.
- </> 2004. *Econometric (IM - Master's degree)*.

📍 Lima, Peru

International Organisations
01/2001 – 12/2007   (PT)
Short-term Consultant

- </> 10/2010–12/2010. Short-term Consultant. **ONU - FAO**.
- </> 08/2007–07/2009. Short-term Consultant. **Inter-American Development Bank (IDB)**.
- </> 10/2007–12/2007. Short-term Consultant. Andean Community (CAN). **EU-CAN Cooperation Project on Statistics (ANDESTAD)**.
- </> 05/2007–07/2007. Short-term Consultant. **World Bank**.
- </> 03/2000–12/2000. Statistical Consultant. **National Institute of Statistics (INEI)**.
- </> 07/1999–02/2000. Statistical Consultant. **National Institute of Statistics (INEI)**.
- </> 08/1998–12/2000. Statistics Specialist. SENASA. **Ministry of Agriculture**.
- </> 07/1997–10/1998. Statistical Consultant. **Ministry of Education**.
- </> 01/1997–04/1997. Statistical and IT Consultant. **PNUD**.
- </> 01/1996–12/1996. Research assistant. **National Institute of Statistics (INEI)**.

Romy Elena Rodríguez-Ravines
LinkedIn 🔗
Website 🖥
Twitter 🐦
601 73 68 98 📞
Madrid, Spain 🏠

Education

2003–2006	**Doctor of Philosophy (PhD), Statistics** Federal University of Rio de Janeiro (UFRJ), Brazil Institute of Mathematics *PhD validated by the University of Vigo (Spain). Nov, 2007* Thesis: *Um Esquema Eficiente de Amostragem em Modelos Dinâmicos Generalizados com Aplicações em Funções de Transferência* (in Portuguese).
2001–2003	**Master's Degree, Statistics** Federal University of Rio de Janeiro (UFRJ), Brazil Institute of Mathematics Dissertation: *Estimação de Modelos Hierárquicos com Dados de Pesquisa por Amostragem Informativa* (in Portuguese).
1994–1997	**Studying for M.Sc. in Systems Engineering** National University of Engineering (UNI), Lima - Peru Graduate School. Faculty of Industrial and Systems Engineering
1997–1997	**Studying for a Diploma in Computing** National Agrarian University (UNALM), Lima - Peru Department of Statistics and Informatics
1989–1994	**Bachelor's Degree, Statistics** National Agrarian University (UNALM), Lima - Peru Department of Statistics and Informatics Dissertation: *Análisis y Diseño de un Sistema de Facturación para la empresa CETCO S.A.* (in Spanish)

Publications

C.Beltran-Royo, L.F.Escudero, J.F.Monge, Romy Rodríguez-Ravines (2014). **An Effective Heuristic for Multistage Linear Programming with a Stochastic Right-Hand Side**. *Computers & Operations Research*. Volume 51. Pages 237-250.

Ridalva D. M. Felzemburgh, Guilherme S. Ribeiro, Romy Rodríguez-Ravines, et.al (2014). **Prospective Study of Leptospirosis Transmission in an Urban Slum Community: Role of Poor Environment in Repeated Exposures to the Leptospira Agent**.*PLOS Neglected Tropical Diseases*: Volume 8. Issue 5, e2927.

Alexandra M. Schmidt, Helio S. Migon, Romy Rodríguez-Ravines (2013). **An efficient sampling scheme for dynamic generalized models**. *Computatitonal Statistics*: Volume 28, Issue 5 (2013), pp 2267-2293.

Ulises Confalonieri, Diana P. Marinho, Romy Rodríguez-Ravines (2009). **Public health vulnerability to climate change in Brazil**.*Climate Research* 40(2-3):175-186.

Romy Rodríguez-Ravines, Alexandra M. Schmidt, Helio S. Migon (2008). **A joint model for rainfall-runoff: the case of Rio Grande Basin**. *Journal of Hydrology*: Volume 353, Number 1, pp 189-200.

Ridalva M. Felzemburgh, Romy Rodríguez-Ravines, et.al (2008). **Impact of Environment and Social Gradient on Leptospira Infection in Urban Slums**. *Plos Neglected Tropical Diseases*: Volume 2. Issue 5, e228.

Romy Rodríguez-Ravines, Alexandra M. Schmidt, Helio S. Migon (2006). **Revisiting Distributed Lag Models Through a Bayesian Perspective**. *Applied Stochastic Models to Business and Industry*: Volume 22, Issue 2. pp 193-210.

Romy Elena
Rodríguez-Ravines
LinkedIn
Website
Twitter
601 73 68 98
Madrid, Spain

Personal Skills

</> Analytical Thinker. Experience in quantitative analysis applied to: Marketing, Pricing, Customer Management, Planning, Economics, Sociology, Education, Epidemiology, Climatology, etc.

</> Acquainted with the treatment and exploitation of all types of information sources and data types. Knowledge and management of BI packages: Power BI, Dynamic graphics (p.e highcharts), html presentations (p.e.Flexdashboard, Shiny, SAS Viya Visual Analytics, etc.

</> Strong Analytic Foundation: multivariate analysis, Time Series treatment and modelling , longitudinal and panel data, space-time statistics, hierarchical modelling, machine learning techniques. Particular interest and experience in using the Bayesian approach.

</> User of *R*, *Python*, *SAS*, *SPSS*, *LaTeX*, *Ox*, and programming languages in general.

</> Experience in selecting and managing analytical talent. High capacity for leading multidisciplinary and multicultural professional teams. Ease of working remotely and in several languages. Collaborative work, motivation and commitment achieved in the teams I leaded deserve to be mentioned.

</> Ability to communicate effectively by speaking to both technical and non-technical audiences about analytical processes. Ability to dialogue with all levels of the organisation. Ease of writing proposals for projects and reports.

</> Self-motivation with good organisational, influencing, interpersonal, and communication skills. Successful experience in teaching analytic subjects to executives and professionals in general.

Others

</> Hispanic-Peruvian Nationality.
</> Languages: Spanish (Native), English, and Portuguese (Brazil).
</> Projects, Publications, Honours and Awards at LinkedIn and Personal Website.
</> Talks, Teaching, Example of Communications at Personal Website.

Madrid. December, 2022.