

Rosa Paula Cuevas

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Career Summary

Data and food scientist with 5+ years' experience, seeking to turn information from complex datasets into data-driven quality decisions through proven skills in machine learning, data visualisation, communication, and scientific writing. Achievements include developing regression models to predict rice classification at 94% accuracy and creating a research framework for understanding consumer food choice.

Technical Skills

Languages: R, Python, SQL, HTML, CSS, JavaScript

Technical Skills: Web scraping, data processing and visualization (D3, ggplot2, Tableau), statistical analysis (regression, cluster analyses, random forest, hypothesis testing), database development

Others: MS Excel, MS PowerPoint, MS Word, scientific writing, oral and written communication

Selected Data Science Projects

(SQL, Python, HTML, CSS, JavaScript, Tableau)

Natural Language Processing

- Extracting summaries and identifying trends from over 4000 scientific abstracts authored by staff from the International Rice Research Institute (<https://enigmatic-plains-87359.herokuapp.com/>)
- Keyword extraction, sentiment analysis for poems (<https://young-bastion-43943.herokuapp.com/>)

Data Visualisation

- Dashboard for belly button microbial diversity (<https://still-brook-99773.herokuapp.com/>)
- Visualising trends of NY Citi Bike ridership in 2018 (https://rochiecuevas.github.io/Citi_Bike/)
- Finding patterns in alien sightings: (https://rochiecuevas.github.io/UFO_Sightings/)

Machine Learning

- Exploratory analysis of hotel guest ratings data (https://github.com/janelcv/Hotel_Rating_Analysis)
- Classification of wheat grains into colour classes through logistic regression of spectrometric data

Experience

Data Analytics Consultant, International Rice Research Institute, Philippines (2019– Present)

- Organises data gathered by market researchers, consumer specialists, and anthropologists into databases (using SQL) ready for querying using Python.
- Conducts machine learning techniques, natural language processing/ text mining, and statistical approaches to draw insights from the data sets found in the databases.

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- Leads the development of technical publications on behavioural drivers of food choice in Eastern India.

Scientist, International Rice Research Institute, Philippines (2015–2018)

- Applied [machine learning tools](#) (e.g., cluster analyses, random forest, multinomial logistic regression), on R, to model a novel rice classification scheme based on quality attributes.
- Applied natural language processing to develop insights about [consumer food choice](#).
- Collaborated with economists in conducting a [hedonic pricing analysis](#) for rice grain quality.

Consultant, International Rice Research Institute, Philippines (2014–2015)

- Acquired descriptive sensory profile data from primary sources and developed the dataset.
- Devised data-driven rice variety recommendations to chefs developing new dishes and menus.

Post-doctoral Fellow, International Rice Research Institute, Philippines (2010–2014)

- Used statistical techniques to identify and analyse [starch chemistry](#)–rice quality associations.
- Designed streamlined screening tools for defined rice quality targets with plant breeders.

Professional Service Staff (Contract), International Rice Research Institute, Philippines (2008–2010)

- Developed and implemented a robust MS Access for the GQNC-Quality Evaluation Services' full-cost recovery program.

Education

University of California, Berkeley Extension – San Francisco, CA, USA

Certificate, Data Analytics and Visualisation Boot Camp

University of Queensland – Brisbane, QLD, Australia

PhD Agricultural Science

Doctoral Thesis: Starch microstructure and functional properties in waxy rice (*Oryza sativa* L.)

University of the Philippines Los Banos – Los Banos, Laguna, Philippines

BSc Biology, Magna cum Laude

Thesis: Production and utilisation of crude tylosin from high-yielding *Streptomyces fradiae* NRRL 2702 Mutant No. 93 as therapeutic agent in broilers