Sharon Arandia Vega

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Machine Learning Python Developer with expertise in finance and data analytics, skilled in writing efficient Python code. Experienced in developing machine learning models, managing algorithmic trading projects, and implementing data-driven solutions. Proven track record in designing and delivering Python-centric programming modules for practical applications in machine learning and analytics.

PROFESSIONAL EXPERIENCE:

Universidad Privada Boliviana, *Bolivia*

Head Professor of the Financial Engineering Bachelor Program

01/2025 – Present

Full Time Professor at the Financial Engineering Department and the Data Analytics Postgraduate Programs

10/2022 – Present

Lectures on Bachelor's courses: *Mathematical Finance, The Capital Market, Finance II, International Finance, Financial Engineering II, Financial Statement Analysis, and Budgeting.*

Lectures on International courses: *Market Microstructure* for the London School of Economics Program (joint degree with UPB).

Lectures on Postgraduate courses: *Big Data Foundations* (languages taught: Python, Cypher, PySpark, SQL, and MQL), *Applied Statistics in Python for Data Analytics, and Cloud Computing* in AWS for the "Machine Learning and Data Science" diploma.

Designed and implemented practical modules incorporating Python programming and machine learning for financial data analysis, giving students hands-on experience with real-world datasets.

Finance Laboratory Manager & Python Developer

10/2022 – Present

Manages a trading floor, leading projects in algorithmic trading. Students achieve an average YoY return of 16%.

Applied Python for developing algorithmic trading systems, data analysis projects, and machine learning models within educational settings. Projects include time series analysis, portfolio optimization, and predictive modeling using Python libraries like Pandas, NumPy, and Scikit-learn.

Part Time Professor at the Financial Engineering Department

04/2020 – 09/2022

Taught bachelor's and postgraduate courses focusing on financial and statistical modeling.

Banco de Credito del Peru S.A., *Cochabamba - Bolivia (subsidiary)* 06/2020 – 03/2022

Credit Risk Analyst at the bank's Corporate Division

Evaluated and presented credit risk assessments for actual and prospective clients for the bank's Credit Committee by analyzing financial statements and projecting future cash flows.

Conducted Economic Sector Analyses for the Commercial Division. Designed and Implemented a system for accelerating the risk evaluation process. Performed data analysis in R.

Lora & Asociados, Tax and Finance Consulting Firm, *Bolivia* 2017 – Present

External Finance and Taxation Consulting Services, on contract.

Produces the Annual Transfer Pricing Study for a multinational software company since 2018. Performs enterprise economic valuation, analyzes treasury management and Financial Statements for a variety of firms.

ACADEMIC EDUCATION

Georgia Tech University, *online from The United States* 01/2024- Expected 2027

Online Master of Science in Computer Science – GPA 4

Specialization: *Machine Learning*

Courses: Machine Learning for Trading, Data and Visual Analytics

IMF Business School / Universidad Antonio de Nebrija, *online from Spain* 10/2022

Professional Master in Big Data – GPA 4

Awarded a 60% scholarship. Data Science Thesis.

Content: Enterprise digital transformation process, data sources and generation, business analytics, Big data related technologies and tools (PySpark, AWS, Python, Pentaho).

Data Science Thesis: *Asset Clustering during the Covid-19 Crisis*, developed in python

Technische Universitaet Chemnitz, *Germany* 09/2019

MSc. Finance (exchange semester) – GPA 3.3

Completed an exchange semester while writing the bachelor thesis.

Courses: Applied Statistics in R for Mathematicians. Stochastic Simulation. Mathematical Fundamentals of Big Data Analytics. Portfolio Optimization.

Universidad Privada Boliviana, *Bolivia* 12/2019

BSc. Financial Engineering – Cum Laude **GPA 3.3**

Distinctions on Quantitative Models and on The Capital Market

Thesis: *Applied Markov Chains as a Contrast Tool for Asset Relative Returns*, developed in R

LANGUAGE SKILLS:

Native: Spanish. Proficient: English (Toefl 100, 2022), German (C1 Goethe Zertifikat, 2021), French (DELF B1, 2013). Intermediate: Portuguese. Beginner: Russian (A1, TU Chemnitz 2019).

IT SKILLS:

Languages: R, SQL, MQL, Python, PySpark, JavaScript

Programs and Technology: Microsoft Office (Excel, VBA), SPSS, Tableau, Pentaho, Hadoop Ecosystem, Power BI, AWS

Financial Tools: Refinitiv Eikon and Workspace, Capital IQ

PARTNERSHIPS, ENGAGEMENT, AND AWARDS:

La Llama Financiera – Founder and General Director.

2020-Present.

Compiles finance, economy, and stock market content for a newsletter directed to promoting finance culture among young Spanish speakers. *Instagram: @lallamafinanciera*

CFA Level I Exam Passed November 2023

Volunteer for the Program "Digital Firefighter" to combat fires in the Amazonas

August-Present.

Automatizes GIS satellite imagery analysis processes in Python for the non-profit association "Combatamos el Hambre" and local firefighters

Nasa SpaceApps Challenge Local Winner Project

Santa Cruz de la Sierra, Bolivia - October 2024.

Award for Best Use of Data. A machine learning based application developed in python that recommends farmers the best time to sow.

Technological Commission of the Puebla Accounting Professionals Body - Invited Member

Estado de Puebla, México - November 2024

Immediate Superior References: PhD. Erwin Veneros, Head of The Data Science Postgraduate Courses at the Universidad Privada Boliviana, erwinveneros@upb.edu, +591 62402844 - MBA. Federico Rojas Najera, Regional Assistant Manager of the Corporate Risk Division of Banco de Credito, frojas@bcp.com.bo,+591 722 00 446