Rodrigo Kang

Physicist | Data Scientist

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in rodrigojuankang | rodrigokang

Physicist and Data Scientist with extensive experience in machine learning, reinforcement learning, quantum optimal control theory, and computational modeling. Strong background in probability, statistics, linear algebra, advanced mathematics, quantum computing, and computational physics. Skilled in leading scalable projects and supporting data-driven decision-making through innovative, consistent, and effective solutions that bridge scientific insight and applied AI.

Work Experience

Lead Data Scientist
Mar 2025 - Present
YPF Tecnología S.A. (Y-TEC)

Lead R&D solutions integrating ML, RL, optimization, and Quantum Computing for O&G. Applied AI across predictive modeling, production optimization, and computer vision.

CRM Supervisor
Jan 2025 - Mar 2025
Cencosud S.A.

Managed CRM team to enhance segmentation, churn prediction, and recommendation systems. Oversaw ML model development and deployment using Python, SQL, and AWS.

Data Scientist
Jul 2023 - Dec 2024
Cencosud S.A.

Built predictive models, recommendation systems, and churn prediction using Python, SQL, and AWS SageMaker to support retail strategy.

Gas Trading & OR Analyst
Apr 2020 - Jul 2023
ECS S.A. - ENGIE GROUP

Designed commercial strategies and optimization algorithms for natural gas markets using Python, LP, and graph theory.

Programming & Balancing Analyst
Dec 2017 - Mar 2020
TGN S.A. - TECHINT GROUP

Analyzed daily pipeline data, prepared balance sheets, and controlled operational imbalances ensuring regulatory compliance.

Education

M.Sc. in Physics
Dec 2021
Universidad Nacional de La Plata

Graduated with honors (GPA: 8.40/10). Specialized in Quantum Optimal Control Theory.

Doctor of Philosophy - PhD in Physics (not completed)
Dec 2024
Universidad Nacional de La Plata

Research in hadronic physics, focused on pion production mechanisms via neutrino scattering.

Projects

Data Science Portfolio
Ongoing
Data analysis, predictive modeling, ML, DL, RL & AI projects

A collection of projects exploring customer analytics, financial modeling, churn prediction, feature engineering, and model interpretability, connecting data-driven insights to strategic decision-making.

Quantum Computing Portfolio
Ongoing
Quantum algorithms, simulations & optimization projects

Projects focused on applying quantum algorithms to solve complex problems, simulate quantum systems, and provide insights at the intersection of physics, mathematics, and computer science.

Technical Skills

Python
NumPy, SciPy, Pandas, Scikit-learn, PyTorch, TensorFlow

SQL
PostgreSQL, AWS Redshift

AWS & Azure
SageMaker, Redshift, Azure ML, Azure AI

Linux
Bash scripting

Git
Version Control

Other
LaTeX, R, C++

Languages

Spanish
Native Proficiency

English
Professional Proficiency (C1)

Certifications

Azure AI Fundamentals
Microsoft, Feb 2025

AI Masterclass
Udemy, Feb 2025

Quantitative Finance
UCEMAx, Nov 2023

Probability and Statistics
UNLP, Dec 2021