Andre Oviedo, CFA

Quantitative Developer & Financial Markets Specialist

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Quantitative developer with a proven track record of engineering high-performance analytical models in Python, SQL, R, and C++. University of Chicago Master's graduate and CFA Charterholder. Expertise in applying advanced modeling and parallel processing techniques to achieve significant performance gains in financial decision-making across large-scale banking portfolios and macroeconomic data.

Education

Master of Public Policy (STEM-designated program) | The University of Chicago *Sep '23 - Jun '25*

- **Relevant Coursework:** HFT System Design in C++, HPC in C++/Python, Computational Optimization, Numerical Methods, Machine Learning, Macro-Finance Strategies

Bachelor of Science in Economics, mention in Finance | Universidad del Pacifico *Apr '12 - Aug '17*

Certifications

Chartered Financial Analyst (CFA) by The CFA Institute *2022*

Experience

Graduate Teaching Assistant | The University of Chicago *Sep '24 - Present*

- First ever Master's student to teach for the whole Data Analytics specialization at the Harris School of Public Policy
- Led weekly lab sessions in Python and R for 250+ graduate students, covering topics in econometric modeling, advanced machine learning algorithms and causal inference

Quantitative Researcher, Economic Research | Superintendency of Banks of Peru *Jan '22 - Aug '23*

Peru's financial regulator, equivalent to a combination of the Federal Reserve, OCC, and FDIC

- Architected an end-to-end, parallelized data pipeline for the IFRS 9-based default-risk model, processing 2.4B+ loans using SQL, Python and R to slash model re-calibration latency from days to seconds
- Engineered automated web-scraping data pipelines in Python, slashing model processing time by 3,000x; accelerated executive decision-making on market-wide risk monitoring
- Developed a multi-source data ingestion and analysis engine for 60+ macroeconomic indicators using SQL, R and Python to generate forward-looking systemic risk signals; improving accuracy, timeliness and reliability of country-wide risk monitoring
- Led a mentorship initiative for 3 junior analysts focused on Python scripting; their resulting automation project eliminated 15 hours of manual data entry per week for the team

Quantitative Developer, Credit Risk Analytics | Superintendency of Banks of Peru *May '19 - Dec '21*

Peru's financial regulator, equivalent to a combination of the Federal Reserve, OCC, and FDIC

- Achieved a 1,000x performance improvement in credit-risk computation by designing and implementing parallel processing algorithms in SQL and R for institutional and retail portfolio analysis
- Re-engineered legacy financial analysis codebase in Python and R, boosting processing speed by 70x for system-wide risk modeling and enabling near-real-time market monitoring
- Engineered a high-frequency data analysis infrastructure to process and monitor real-time data, accelerating regulatory decision pipelines by 7x

Quantitative Analyst, Financial System | Superintendency of Banks of Peru *May '18 - Apr '19*

Peru's financial regulator, equivalent to a combination of the Federal Reserve, OCC, and FDIC

- Led the technical validation of a major bank's XGBoost machine learning model used to predict income for 9M+ customers, ensuring model integrity and algorithmic fairness
- Engineered a high-performing data processing framework in SQL, R and PowerBI to analyze retail credit portfolios (15M+ loans), allowing for unified risk assessment and improved policy decisions
- Developed custom libraries for high-throughput data processing from Oracle databases, serving as a foundational tool for subsequent system-wide portfolio and market analysis

Quantitative Analyst Intern, Banking Supervision | Superintendency of Banks of Peru *Dec '16 - Dec '17*

Skills

- **Programming & Databases:** Python, C++, R, SQL, Julia, Matlab
- **Python Libraries:** NumPy, Pandas, Scikit-learn, SciPy, TensorFlow, SymPy
- **Parallel & High-Performance Computing:** CUDA, SIMD, Multithreading, HPC
- **Quantitative Skills & Modeling:** Monte Carlo Simulation, Time Series Analysis, Econometric Modeling, Risk Modeling (VaR), Derivatives Pricing
- **Developer Tools & Cloud:** Unix, Git, Docker, AWS