VINICIO DESOLA

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SKILLS

Programming: Proficient in Python, R, C++, VBA, CLI, Docker. Work experience with q/kdb+, Java, MATLAB, Scala.

Data Science: SQL, NoSQL, Git, Hadoop, Spark, Pandas, ScikitLearn, Numpy, Scipy, Machine Learning Algorithms: kNN, Naïve Bayes, Regression Modeling, Decision Trees, Random Forest, Boosting, Tensor Flow, Gradient Descent, NLP, BERT. Deep learning techniques: CNN, RNN, LSTM, GAN.

Mathematics: Stochastic Modeling, Risk Measurements, Derivatives, MBS, Optimization, Probability, Statistical Inference

EXPERIENCE

FINRA, New York, NY — *Apr. 2019 – Present*

Quantitative Analyst / Data Scientist

- Designed and implemented ETL on TRACE data of cash bonds and futures, to create treasury analytics in Databricks using Python and Scala: find the basket of deliverable bonds at any point in time, and the cheapest to deliver.
- Created an interactive order book for treasuries and futures, up to 10 price level, to detect possible market manipulation (Outlier Detection, Squeeze, Layering) using Python. (Winning project on Createtathon 2019 – Visualization)
- Designed and implemented ETL on blotter data to compare auctions order book movement vs. continuous Book
- Built and trained an Autoencoder CNN for Option trades to detect outliers and manipulative trades.

ILIO CAPITAL FUND, New York, NY — *Apr. 2018 – Apr. 2019*

Quantitative Researcher and Portfolio Manager

- Invested to gain exposure in crypto-asset returns, constructed return factors incl. market, momentum, liquidity, and size across the coin universe, using Python and R. In charge of backtesting. AUM: $400k. Annualized Return to the date: 24%.
- Researched new strategies using NLP techniques like sentiment analysis and word embeddings.
- Built the data pipeline, from the exchanges to reporting, using Docker containers. All API in Python, reports in R.

MORGAN STANLEY, New York, NY — *Nov. 2017 – Jan. 2018*

Fixed Income Strats Associate Intern

- Developed a model for marking risk retention on conduits deals (duration and convexity), using loan to loan data, in q/kdb+.

CEPHEUS, Caracas, Venezuela — *Dec. 2014 – May. 2017*

Chief Financial Officer

- Participated in all phases of entrepreneurial project development and execution for a team of 11.
- Designed an arbitrage Forex algorithm using BTC - $ - VEF. Revenues $13k+, stopped by local regulations, using Python.

C.A. EDITORA EL NACIONAL, Caracas, Venezuela — *Jun. 2009 – Nov. 2015*

Operations Manager

- Designed, planned, and managed inventory and procurement models to reduce production costs, for the second largest newspaper in the country, with a weekly circulation of 450k+ people, using VBA and C++.
- Implemented, and managed the raw materials' MRP (Resource Planning) and JIT (Just in Time) process, resulting in annual savings of $1M+(20% from previous years). Designed new procedures with annual savings of $20k+ (6% cost reduction)

EXTRACURRICULARS

- TA (UC Berkeley 2019-2020) for master's level courses like: Data Engineering, Stochastic Calculus with Asset Pricing Applications, Derivatives: Quantitative Methods, Deep Learning and Cloud Computing at the Edge, and Financial Innovation with Data Science with excellent performance reviews.
- 2020's Cheit's Award for Best GSI (Graduate Student Instructor) from the Haas School of Business (UC Berkeley)
- International Association of Quantitative Finance (IQAF)- Winner of the 7th annual IAQF Competition, 2018.
- Commissioner of a football fantasy league. Enjoys comics books/movies and playing basketball.

CERTIFICATIONS and TRAINING

Chartered Financial Analyst (CFA) Level I – Passed — *Jun. 2016*

EDUCATION

University of California, Berkeley – School of Information (iSchool) — *Aug. 2018 – Apr. 2020*

Master of Information and Data Science GPA: 4.00/4.00

Research: "*FinBERT: pre-trained model SEC filings for financial natural language tasks*", *"Tiki: A Prototype Virtual Assistant for VQA", "ActIQ: Video Activity Query"*

University of California, Berkeley - Haas School of Business — *Mar. 2017 – Mar. 2018*

Master of Financial Engineering GPA 3.88/4.00

Research: "*Crypto-economics: Dual Economics of Crypto-currencies and Token Valuation"* and *"Factor Investing in the Crypto World*"

Universidad Simon Bolivar, Caracas — *Sept. 2003 – July 2009*

Bachelor of Science in Production Engineering Summa Cum Laude GPA 4.8/5. Top 5% of class