XAVIER BENGOECHEA, CFA

(775) 412 - 3181
xavier@alumni.caltech.edu

321 S Arlington Ave
Reno NV 89501

PROFILE

Quantitative Research Analyst with 25 years experience building models and wrangling data. A hands-on team player with strong analytical skills who is intelligent, nimble and rigorous.

EDUCATION

CFA Charterholder with thirteen (13) consecutive years of Certified Continuing Education
B.Sc., Mechanical Engineering, **California Institute of Technology**

TECHNICAL EXPERTISE

Perl, SAS, SAS Macro, Excel VBA, C/C++, Python, R, SQL, Ruby, UNIX, bash, git, sed, awk
Portfolio optimization, signal combination, Bloomberg, Datastream, Reuters API, MSCI Barra USE3
Regression (OLS, logistic, panel, VAR, SUR, GARCH, regime-switching), ARMA, PCA, SVD, Monte Carlo sim, HMM, time series & fundamental analysis, bottom-up & top-down valuation
Interests: ML, neural nets, Q-learning, deep learning, game theory & mechanism design

ACHIEVEMENTS

REVENUE GENERATION

Discovered an un-hedged export flow strategy for FX selection that made $2 billion in one year
Successfully tested & incorporated an options skew model for profitably trading currency futures
Developed a daily adaptive risk reversal model which reduced implementation shortfall

COMMUNICATION

Published daily executive summaries on markets & portfolio performance for executives & clients
Created an online risk dashboard to quickly and concisely illustrate sources and levels of risk
Systematically attributed portfolio allocations & performance to strategies with succinct charts
Created Monte Carlo simulations to better convey the concept of risk & distributions to investors

QUANT METHODS

Constructed an algorithm that closely replicated the performance of long-only commodities managers
Created an online risk dashboard to quickly and concisely illustrate sources and levels of risk
Replicated emerging market stock & bond indices using only emerging market currencies
Conceived option overlay strategies that reduce tracking error at no additional cost

QUANT TOOLS

Created a better performance attribution tool that did not rely on regression
Wrote a program that generated customizable futures returns series from raw encrypted data
Advanced panel data analysis by introducing novel panel transformations
Devised statistical techniques to accommodate time series of different lengths
Wrote an option screening program that identified desirable options structures

DATA QUALITY

Responsible for daily portfolio positions, signal integrity and market data inputs
Ensured Global Macro performance in each portfolio was a direct function of opportunity

AD HOC SPRINTS

Quickly identified a better measure of bank solvency and correctly predicted the bailout of Dexia
Designed a risk model and FX strategy in under 24 hours to protect portfolios from EUR/CHF crisis

EXPERIENCE

Independent Quantitative Consultant & Financial Analyst   *Reno, NV   2012 – Present*
  Reviewed investment managers by evaluating their risk & performance, assessing the consistency of their narrative with their allocations, and advising the investment board suitably.
  Attributed portfolio risk, performance & allocations to AC, industry, custom factors, etc.
  Wrote commentary & produced charts that clearly & concisely conveyed this attribution analysis.

Quantitative Research Analyst *First Quadrant, LP*   *Pasadena, CA   2005 – 2012*
  Product Specialist for Bond Country Selection and Investment Strategist for Global Macro
  Developed investing & trading strategies for currencies, commodities, equities & derivatives

Sr. Opto-Mechanical Engineer *Thales Avionics, Inc.*   *Irvine, CA   2000 – 2005*
  Led the Integrated Product Team (IPT) for the airborne camera product line
  Created models to solve heat transfer, fluid flow, fatigue failure & stress/strain problems

Mechanical Engineer   *Lasergraphics, Inc.*   *Irvine, CA   1994 – 2000*
  Designed & developed digital film recorders, cameras, projectors & printers

Field Engineer Intern   *Schlumberger   Denver, CO & Midland, TX   1993*
  Collected, interpreted, transformed & delivered corrected oil well data with reports

LANGUAGES

Fluent in English and Spanish

HONORS & AWARDS

- Inventor of *Surveillance Window* patent no. 7,187,498 awarded 2007
- *Co-inventor of Universal Security Camera patent no. 6,824,317 awarded 2004*
- *Key contributor to Projector with Circulating Pixels patent no. 6,657,603 awarded 2003*
- *President of the Society of Hispanic Professional Engineers (SHPE), Caltech Chapter*