SHAOLUN(ALAN) DU, FRM

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EXPERIENCE

Advocate Capital Management

Quantitative Risk Analyst (Feb. 2018 --- , intern included) New York, NY

- Develop and maintain in-house portfolio risk system in python OOP programming with focus on yield curve building, fixed income product pricing and risk measurement calculation. (50%)
- Research historical economic panic periods and perform scenario analysis on company's portfolio to identify potential large drawdown when market stressed. (30%)
- Automate daily data management process with vendors: Bloomberg, CS-Locus and Barclay-Live and in-house quantitative models using Excel VBA and python scripting programming. (10%)
- Provide clients with hedging suggestions on balance sheet interests rate risk and currency risk and generate monthly company cash flow risk with attribution analysis. (10%)

Shanghai CIFCO Futures Co., Ltd

Risk Analyst Intern (May. 2016 --- Aug. 2016) Shanghai, China

- Monitored clients' portfolio valuation and margin requirements and reported to manager on daily basis.
- Developed in-house VaR model for potential margin call needed based on 5% probability and compared three VaR calculation methods in python: Var-Cov method, Historical Simulation and Monte Carlo Simulation.

SQI Capital (Asset manager of Shanghai CIFCO Futures)

Quantitative Analyst Intern (May. 2015 --- Aug. 2015) Shanghai, China

- Developed python scrapping tools to automatic download market information from China's major commodity exchange website and alternative data from third party platform and automated daily in-house report generation process. (60%)
- Researched China's stock index future trading strategy with narrow range breakout signal and inter-market correlation distribution as additional filter and implemented in TB platform. (40%)

CERTIFICATIONS/AWARDS

- Series 3 licensed (ID: 0526023), Passed CFA level 3 exam (Jun. 2018), designation pending
- Meritorious winner in CoMAP'S Mathematical Contest in Modeling (Mar. 2013)

EDUCATION

NEW YORK UNIVERSITY New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics (Sep. 2016 – May. 2018) GPA:3.8/4.0

PURDUE UNIVERSITY West Lafayette, IN

MS in Computer Science (Sep. 2014 – Dec. 2015) GPA:3.6/4.0

SHANGHAI UNIVERSITY Shanghai, China

BS in Mathematics and Applied Mathematics (Sep. 2010 – Jul. 2014) GPA:3.6/4.0

RELEVERANT COURSEWORK: Econometrics & Portfolio risk management, Computing in Finance, Stochastic Calculus for Option Pricing, Machine learning and Deep learning, Scientific computing and Optimization,

PROJECTS

DERIVATIVES PRICING IN PYTHON(QuantLib) Advocate Capital Management, LLC

- Bootstrapped yield curve using most liquidity trading products in rates market with deposit rates, interests rate futures and swaps.
- Priced swap, FX and interests rate options product of G10 currencies and generated risk metrics includes DV01, KRDs, Greek letters and XVA.

RISK AND PORTFOLIO MANAGEMENT IN PYTHON New York University, NY

- Implemented portfolio construction on industrial historical data using Mean-Variance optimization.
- Combined momentum strategy with Black-Litterman model to generate estimated expected returns and PCA to estimate COV matrix.

COMPUTER SKILLS/OTHER

- Python (SCIPY, NUMPY, PANDAS, QUANTLIB) with OOP design, over four years and 50,000 lines
- EXCEL (Intense using in front-end development and automation with VBA & Python programming)
- SQL, Bloomberg, CS-Locus and Barclay-Live. (Working knowledge of daily using)