



Suggested Reading

You will gain an interview on the strength of your academic background but it is worth augmenting this with additional reading to understand what we do, and what knowledge we find valuable.

Key words / models you should be familiar with:

There are some basic concepts you should familiar with before interviewing with us such as: Gaussian processes, Bayesian statistics, Sharpe ratio, portfolio optimisation, CAPM, time series analysis, PDEs, convex optimisation, securities markets 101, OOP.

There are also some more advanced concepts that are useful to understand: Garch models, pairs trading strategies, trend following and mean reversion strategies, machine learning techniques, market microstructure, order book modelling, carry trades, term structures, the Black Scholes equation, Black Litterman portfolio theory, Markov processes, game theory, Monte Carlo methods

The list of advanced topics is quite open ended; that is intentional. We do expect candidates to bring along *some* advanced knowledge that can be valuable for us, but we will not expect a successful candidate to be a specialist in every single topic.

Asset Classes: Equities, FX, Futures, Interest rates, Credit, Emerging markets, Commodities,

Systematic Strategies: CTA / Global macro, Global Macro, Equity, Statistical Arbitrage, Latency Arbitrage /Ultra High Frequency.

Key Books

- **Grinold and Kahn, Active Portfolio Management** : A quantitative approach for producing superior returns and selecting superior money managers
<http://www.amazon.co.uk/dp/0070248826>
- **John C. Hull, Options, Futures and Other Derivatives**: An elementary text on mathematical finance. This book can serve as an excellent launching point into the topic.
http://www.amazon.com/Options-Futures-Other-Derivatives-5th/dp/0130090565/ref=sr_1_6?s=books&ie=UTF8&qid=1393506534&sr=1-6
- **Rishi K. Narang, Inside the Black Box**
<http://www.amazon.co.uk/Inside-Black-Box-Quantitative-Trading/dp/0470432063>
- **Heard on the Street** – Useful for generic quant interview prep

Additional Reading:

- **Wackerley, Mendenhall, Schaeffer**, Mathematical Statistics with applications
http://www.amazon.co.uk/Mathematical-Statistics-Applications-Dennis-Wackerly/dp/0495385085/ref=sr_1_1?s=books&ie=UTF8&qid=1318409581&sr=1-1

- **Harris**, Trading and Exchanges: Market Microstructure for Practitioners
<http://www.amazon.co.uk/dp/0195144708>
- **Gencay**, An Introduction to High-Frequency Finance
<http://www.amazon.co.uk/dp/0122796713>
- **Johnson**, Algorithmic Trading and DMA: An Introduction to Direct Access Trading Strategies (Good for Latency Arbitrage) <http://www.amazon.co.uk/dp/0956399207>
- **Kestner**, Quantitative Trading Strategies: Harnessing the Power of Quantitative Techniques to Create a Winning Trading Program
<http://www.amazon.co.uk/dp/0071412395>
- **Dunis**, Applied Quantitative Methods for Trading and Investment
<http://www.amazon.co.uk/dp/0470848855>
- **Vidyamurthy**, Pairs Trading: Quantitative Methods and Analysis
<http://www.amazon.co.uk/dp/0471460672>

For background reading that's non-technical, we recommend:

- Scott Patterson, The Quants
http://www.amazon.co.uk/Quants-maths-geniuses-brought-Street/dp/1847940595/ref=sr_1_1?s=books&ie=UTF8&qid=1318409690&sr=1-1
- David Leinweber, Nerds on Wall Street
http://www.amazon.co.uk/Nerds-Wall-Street-Machines-Markets/dp/0471369462/ref=sr_1_1?s=books&ie=UTF8&qid=1318409648&sr=1-1