From CERN to Finance: Experience of our members

Rami Kamalieddin (UNL) on behalf of the CERN Finance Club

Outline

- CERN Finance Club
- Who is a quant? Necessary skillset
- Must have books
- (Un)Importance of the CV
- An example of the Mock interview
- Internet resources and tips
- Conclusions

CERN Finance Club

E-group ~120 people. Regularly meetings to:

- discuss finance news
- teach finance 101 course
- work on the club portfolio
- host invited talks

~Half of the people strongly prefer investment banking for their future career

Interview prep group ~90 people. Tête-à-tête preparation

https://financeclub.web.cern.ch/content/join-us
http://facebook.com/groups/cernfinanceclub
https://www.linkedin.com/groups/13561358

QUANTitative researcher

Data scientist with:

- Good knowledge of statistics
- Some knowledge of finance

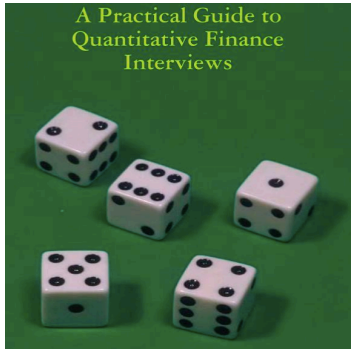
Technical interview will include :

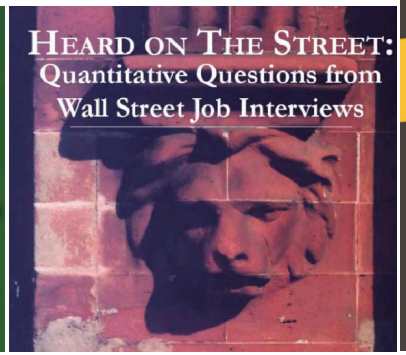
- Probability/Statistics (~60% of Qs)
- Brainteasers and some mental math(~20% of Qs)
- Programming/algorithms (~15% of Qs)
- Finance (~5% of Qs unless you have CFA on your resume)

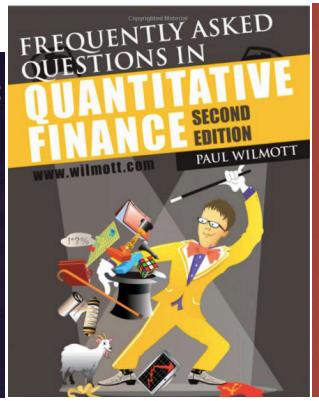
Soft skills interview is very important too!

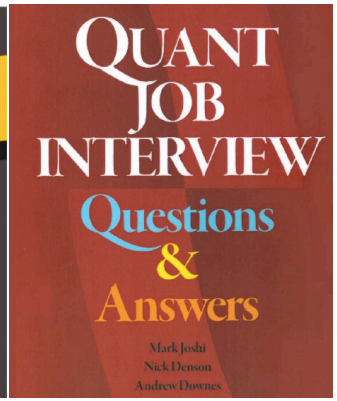
Must have books

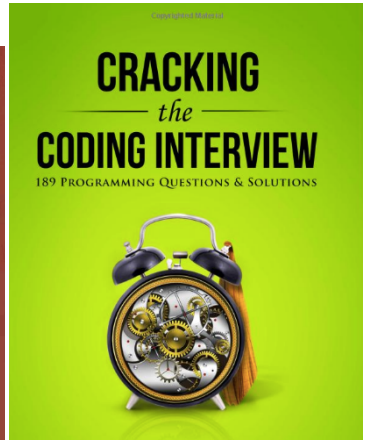
- A Practical Guide To Quantitative Finance Interviews by Xinfeng Zhou
- Heard on the Street: Quantitative Questions from Wall Street Job Interviews by Timothy Falcon Crack
- Frequently Asked Questions in Quantitative Finance by Paul Wilmott
- Quant Job Interview Questions And Answers by Mark Joshi
- Cracking the Coding Interview: 189 Programming Questions and Solutions by Gayle Laakmann McDowell











Curriculum vitae

How to write a good CV?

- Start by NOT writing any CV! ☺
- For Finance jobs you need a **resume**!
- Find a good template*, keep resume concise, and match it to the position
- At least ask your friend from finance/Alumni forum/CERN Finance Club to take a look, better check with the “resume expert” from the career office of your institution, ideally get a help from the industry professional

https://www.wallstreetoasis.com

Mock interview

Walking thru the resume:

- Explain my grandma what your thesis is about in 10 sentences
- Why our company?
- Tell me about your worst boss
- Why buy/sell side?

Technical part (in the backup):

- 7 prisoners
- Coin toss
- e^{π} vs π^{e}
- Baseball game
- Searching

Practice makes perfect & tips

- Practice with colleagues/friends/people from Finance Club
- Use Alumni forum/LinkedIn/Glassdoor to be notified of the openings
- Subscribe to Finimize to receive 3-min finance news updates
- Find a mentor! That person benefits too: long-term and also the satisfaction of being a great adviser/seeing you nailing interviews and climbing up the career ladder
- Use some famous online platforms to polish your skills/show your coolness/put on your resume, e.g., Leetcode and Kaggle

THANKS to ALL

- Thanks to Alumni Office for organizing this!
- Thanks to panelists for finding time to give talks
- Thanks to Christian, Eric, Pascal, Quim, Siim for the help running the CERN Finance Club
- Thanks to all who joined this event

BACKUP

Technical questions

Seven prisoners are given the chance to be set free tomorrow. An executioner will put a hat on each prisoner's head. Each hat can be one of the seven colors of the rainbow and the hat colors are assigned completely at the executioner's discretion. Every prisoner can see the hat colors of the other six prisoners, but not his own. They cannot communicate with others in any form, or else they are immediately executed. Then each prisoner writes down his guess of his own hat color. If at least one prisoner correctly guesses the color of his hat, they all will be set free immediately; otherwise they will be executed. They are given the night to come up with a strategy. Is there a strategy that they can guarantee that they will be set free?

You toss a biased coin. What is the expected number of coin flips until a head is tossed? For two consecutive heads?

You are at the baseball game. Estimate the probability that a baseball ball will dive into some beer cup during the game ('beer fall ball').

Design an efficient algorithm that finds the index of the 1st occurrence of an element larger that a specified key K, return -1 if every element is less than or equal to K.