Quantitative Researcher Assessment Process

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The below outlines our Quantitative Researcher Assessment Process, as well as some guidance on how to prepare for interviews.

Stage 1: Quant quiz and triage interview

You'll be asked to complete one of two quant quizzes; either a general quant-related assessment, or a machine learning specific one. The quizzes give you the opportunity to demonstrate your expertise within mathematics, statistics, programming, probabilities and ML (if applicable).

Stage 2: Further technical interviews

This stage will focus on more in-depth technical questions in mathematics, along with your choice of two subjects from programming, statistics, machine learning or finance. Each interview is 1-hour long.

Stage 3: Management and Senior Management interviews

Following the successful completion of the technical interviews, you will be assessed on your skills in relation to specific teams and their areas of research by relevant members of management. Culture and team fit will also be critical to assessment at this final stage.

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Recommended reading

As part of your interview process, you'll be required to take a technical quiz and triage interview.

The quiz assesses basic skills, more so than advanced mathematics. Key topics include probability, statistics (including OLS), linear algebra, calculus (especially differential equations), programming and finance.

If the quiz goes well, the next step will be a 'triage' interview, in which we identify the appropriate technical interviews for you. One of these will be Mathematics, two will be drawn from Statistics, Finance, Programming, and ML.

We've provided some general suggested reading for you to brush up on topics, or to fill in any gaps in your knowledge:

- One way of preparing for the quiz is to work through a book like Stefanica, Radoičić and Wang[1]. It emphasises numerical methods more and statistics less. It's more advanced questions are closer to the level of our triage interview questions than of our quiz questions

[1] Dan Stefanica, Radoš Radoičić and Tai-ho Wang. 150 Most Frequently Asked Questions on Quant Interviews. Pocket Book Guides for Quant Interviews. FE Press, 2013.

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- We do not assume a detailed knowledge of finance. If you wanted a single source however, Narang [2] is a good, casual introduction to many of these concepts. If you were interested in getting some trading experience, Narang's focus on trading strategies can help you assess and implement your understanding of the theory

- If you want coding practice, ProjectEuler.net is a nice place to start; it provides bite-size maths problems that often require a computational solution. Codility, Kaggle and TopCoder have similar projects. Working up to Kaggle would be a good idea; they have become an industry standard as their prediction problems are close to a lot of quant work

- Googling 'programming brain teasers' is also good preparation for the programming technical interview

- If you want to know what other quant researchers are reading, this community wiki answer provides lots of options, ranging from introductory to expert

[2] Rishi K. Narang. Inside the black box: A simple guide to quantitative and high frequency trading. 2nd. John Wiley & Sons, 2013.

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- A classic first generation Wall St. quant memoir is Derman [3]

- Schwager [4] interviews successful fund managers about their trading strategies

- For further reading on ML, take a look at Cracking the Coding Interview and The Elements of Statistical Learning

[3] Emmanuel Derman. My life as a quant: reflections on physics and finance. John Wiley & Sons, 2004.

[4] Jack D Schwager. Hedge fund market wizards: How winning traders win. John Wiley & Sons, 2012.