CITADEL | CITADEL | Securities

Quantitative Research Interview Guide

BEFORE YOUR INTERVIEW

- Please take a few minutes to review our websites to learn about the firms, our values and the extraordinary team that drives our success.
- Review your resume and be prepared to discuss your experiences, current and past projects, without disclosing any information that is confidential or proprietary to any third party or any material non-public information. This will help drive the conversation and give you an opportunity to share situations where you solved a complex problem and how you made an impact.

STRONG CANDIDATES WILL POSSESS THE FOLLOWING KNOWLEDGE AND ABILITIES

- Advanced knowledge of probability and statistics (ex: linear regression).
- The ability to organize and understand complex sets of data and extract meaningful insights.
- The capability to formulate hypotheses and actionable solutions.
- An understanding of how to translate mathematical models and algorithms into code
  - Some of the most common programming languages for quantitative researchers at Citadel and Citadel Securities include C++, Python, and R.
- Curiosity to apply the scientific method to abstract research problems. Then, translate your results to build a system based on that outcome.

HELPFUL TIPS

- **Verbally share your thought process**. Be prepared with specific examples to elaborate on your approach to solving problems. Ask specific questions if you need more clarification.
- **Take time to write down your thoughts and ideas**. It may be helpful to write down your thoughts and ideas as you work through problem solving exercises with your interviewer in real-time.
- **Be creative, it counts**. Have an open-mind and be creative in your approach to the interview questions.

DURING YOUR INTERVIEW

Your interviewer will ask situational based and technical questions to learn more about your background, research skills and your experience collaborating with others. Additionally, the interviewer will ask questions to understand your working style and research process.

Each interview will be different based on the interviewer and your experience; however all interviews tend to consist of four parts:

- **Research Projects**: Questions that focus on your current and past projects and research. You will be asked to go in depth from a technical perspective.
- **Programming Ability**: Questions that focus on your programming ability in which you can answer in whatever programming language you feel most comfortable.
  - Ability to write code
  - Understanding computer science and fundamentals (algorithms, data structures, complexity)
- **Probability/Statistics**: Each interviewer has a variety of these types of questions they may ask to assess your knowledge in these areas.
- **Intuition**: Regarding data, interpretation and decision making.

Please remember that throughout this process it is very important that you scrupulously abide by any obligations you may have to your current employer and any other third party. To that end, please do not disclose any other confidential information belonging to your current employer or any third party and do otherwise act in accordance with all obligations to your current or former employers (including third parties that you may have provided consulting services for). If you feel that a particular question may require you to disclose confidential or proprietary information, please let the interviewer know and he or she will adjust the question accordingly.