Dhruv Patel

CMPE 294

Fall 2023

Date – 9 Nov 2023

**Interview with Your Advisor Report**

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| **Advisor Name** | Bowen Jiang |
| **Title** | Software Engineer |
| **Place of Employment** | MarketAxess, New York |

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| **Team Members** | Dhruv Patel (Interviewer). Bowen Jiang (Interviewee) |
| **Interview Time** | Zoom Call (9 Nov 2023) |
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**Introduction**

The purpose of my interview was to gain a comprehensive understanding of the dynamics and challenges of software engineering within a fintech firm. I chose this particular focus not only to broaden my knowledge of the field but also to acquire practical insights that can directly inform my upcoming transition into the fintech industry following my graduation. With a clear interest in the application of software engineering principles within the fintech sector, I aimed to explore how these principles are intricately woven into the operations of such firms, thereby preparing myself for the challenges and opportunities that await me in my future role. This interview served as a valuable opportunity to gain firsthand knowledge and insights that will undoubtedly guide my career trajectory in the fintech space.

**The Interview**

**Q1. How long have you worked at your company and where else have you worked**

**previously?**

* I have worked at MarketAxess for 1.5 years and before Marketaxess I was a Student at NEU Boston and an Intern at SpaceX.

**Q2. What kind of writing and how much writing are required on the job?**

* As an Mid-level Software Engineer, My most part of the day is spent writing refactoring Code bases, Occasionally I have to document new APIs and Functions I create, Marketaxess follows a philosophy that your code should be clear enough that another developer can understand it without reading the documentation.

**Q3. How important are oral communication skills as compared to written?**

* In any job, being able to talk with your team or write down your thoughts is super important. It depends on what you're doing, but as a software engineer in a fintech company, you'll see that you need both talking and writing skills. When you're working on code, writing is a big deal. You've got to explain what your code is doing so others can understand and use it. Emails and messages are also a big part of the job for keeping everyone on the same page. But hey, talking is just as crucial. When you're working with your team, you've got to chat to figure things out quickly. Meetings and discussions need good talking skills, especially when you're working with clients or other teams.

**Q4. How much time is spent working in teams, and what skills are needed to work in a team?**

* Teamwork is a crucial aspect of the job. Fintech projects often involve complex systems that require collaboration among different teams such as software development, data science, and financial experts.

**Q5. How does the company value independent thinking and leadership skills?**

* We operate like a startup, everyone in the company are given liberty to choose their own work items, and hierarchy is very flat here which promotes open communication.

**Q6. What ethical dilemmas are you aware of/have you encountered?**

* It's essential for software engineers in the proprietary trading sector to be aware of these potential ethical challenges and to work within a framework that emphasizes integrity, compliance, and responsible business practices. The financial industry is closely regulated, and companies often have internal policies to address these ethical concerns. Major dilemma me and many software engineers face is when designing Trading Algorithms that may unintentionally contribute to market manipulation or unfair trading practices. Also, many time company`s profitability and client’s interests are in conflicts, so we have to do our work balancing all those conflicts.

**Q7. Can you shed some light on your daily schedule?**

* My typical routine is divided between meetings, and work. I start off my day with attending a standup meeting, then getting to work on my tickets. Some major production issue or sev-0 tasks sometimes eat up the entire day, but yes majority of my work involves coding.

**Q9. What is the Major Tech Stack you work on?**

* The team I work on majorly a backend focused team, so majority of our work is on Java Spring boot, AWS cloud services, yes but sometimes we have to deal with legacy technologies too.

**Q9. What is the advice you would give to students or new grads currently navigating the tough market conditions.**

* For students and new graduates navigating a challenging job market, it's crucial to diversify their job search efforts across various platforms and explore opportunities in different industries. Prioritize skill development and stay updated on industry trends to enhance competitiveness. Build a strong professional network through networking events and online platforms like LinkedIn. Stay adaptable to different job prospects, optimize resumes, and prepare thoroughly for interviews.

**Conclusions**

In conclusion, my meeting with the chosen professional was an insightful and enriching experience. I gained valuable insights into the intricacies of the fintech industry and the role of a software engineer within a proprietary trading company. What was most helpful to me was the professional's candid discussion about the challenges and ethical considerations unique to this sector. Learning about the delicate balance between pursuing profitability and adhering to regulatory and ethical standards has broadened my perspective on the responsibilities associated with software engineering in finance. This experience benefits me academically and professionally by providing a real-world context to my academic studies. The professional's guidance has given me a clearer understanding of the industry's demands and has influenced my project direction by emphasizing the importance of ethical considerations and compliance in financial software development. One key takeaway that surprised and enlightened me beyond my expectations was the emphasis on effective communication and collaboration within the team. The professional highlighted how success in this field is not solely about technical prowess but also about the ability to communicate complex ideas, work collaboratively, and adapt to rapidly changing market conditions. This realization has underscored the importance of honing not only technical skills but also soft skills for a successful career in fintech.