Di (Patrick) Lu

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Algo Depth
1 Broadway, Cambridge
Massachusetts 02142, USA

Dear hiring manager,

I am applying for the Quantitative Trader in Machine Learning Position. As a first-year master's student in the University of Michigan's Quantitative Finance and Risk Management program with experience in data science research and coding skills, I am interested in this opportunity to gain experience in algorithm trading and machine learning. The following skills and experiences will make me an asset to your team:

- **Ability to handle large datasets:** Having worked on a data analysis project, I feel confident in my ability to handle with large datasets in R, draw statistical inference, and run models to determine most significant KPI indices. Starting with raw data in the operation system, I went through data cleaning and merging processes to make datasets ready for use and ran tentative progression at weekly meetings for discussion. I feel very comfortable dealing with data and will be an asset in the attempted and exploratory research process.

- **Experience with cultivating trading strategy:** My work experience at Huisheng-Guanghua Research Fund gave me the opportunity to translate cutting-edge academic findings into practice. One of my major contributions was testing the effectiveness of the Beneish M-score as a trading signal in Chinese market. I ran the strategy on the Ricequant platform to find that it was not effective as a single indicator but could become effective combined with other items. I would use this experience to assist in creating new strategy as part of your team at Algo Depth.

- **Familiarity with financial products:** During my internship at China Securities Strategy Research team, I prepared weekly market tracking report including all market indices from Asian, European and U.S. stock market. Based on that, I backtested common strategies with SAS to track their recent market performance. This hands-on experience helped me establish understanding of the market and products and honed my research skills with quantitative tools.

I hope to bring these skills and experiences to work with the quantitative trading team of Algo Depth. I look forward to talking with you about the internship and its expected role in contributing to Algo Depth's leading and innovative culture. Please feel free to contact me by phone or email.

Sincerely,
Patrick Lu