## Mingyue (Phoebe) Li

February 28<sup>th</sup>, Dear Hiring Team,

As I was reviewing your posting for the Risk Data Analyst position at Robinhood, I was thrilled to find out that my data analytics experience aligned with your requirements for this position. Robinhood stands out to me because of its wide range of capabilities for the industry and its goal of innovating and bringing benefits to the community. Therefore, I am confident that I would be a great fit for this position and exceed your expectations if given the opportunity.

The Master of Science in Healthcare Analytics and Information Technology program at Carnegie Mellon University has shaped me to become a robust data scientist. Through the study of deep learning and machine learning, I had a comprehensive understanding of the application of deep learning into the NLP field and can use PyTorch proficiently to build commonly used deep learning models. In my project, Utterance to Phoneme Mapping, I used PyTorch to build up CNN + LSTM model to predict the phonemes contained in utterances in the test set. The model implemented CTC decode as the loss function and used Beam Search for CTC decode to predict the sequence of phonemes. To evaluate the accuracy, I used Levenshtein distance to evaluate the distance between the predicted result and the target result.

In addition, I excel at interpreting data and can derive meaning from data sets using a variety of tools, including R, Python, SQL, and Tableau. At my recent internship with Amgen, I worked closely with the patient safety team to analyze patients' data. I developed an SQL query to create Proportional of Events Signal Detection Output across fifteen periods for eight different products. I conducted research to improve and automate the signal detection process and data analysis to evaluate different thresholds and methodologies to find the best statistical model with the lowest false positive rate. After working in the Biotech industry, I realized data science could bring many benefits to the community and decided to pursue my career in the data science field.

Additionally, I'm extremely motivated by my passion and willing to take responsibility. In 2020, I participated in a Hackathon held by MIT Hacking Medicine with six teammates. I took the responsibility as the team leader and addressed the dilemma within the healthcare industry that isolated elders cannot get treatment in time and their mental health was not taken seriously. The mobile application we designed will track the mental and physical health of elders through smart home devices. The system will ask simple daily questions and collect elders' responses to evaluate their mental and physical condition and will send alerts to providers if it detects the unexpected answer. Our idea stood out of over 90 teams and won third place in the Hackathon.

I look forward to contributing my skills and passion to the Risk Data Analyst position at Robinhood and eagerly await the opportunity to speak with you further about how I can be an asset to the team. I can be reached via phone or email. Thank you for your time and consideration.

Best regards, Phoebe Li