



Milestone 4: Frontend & Continuous Integration

- What, if any, insights did you get from your PM meeting?

A particularly helpful technical recommendation was to explore decision tree-based algorithms for our classification tasks. Our PM explained how these models, especially Random Forest and Gradient Boosting, might be well-suited for capturing the non-linear relationships present in betting market data. They shared examples from similar projects where ensemble methods outperformed simpler models, which gave us confidence in pivoting toward this approach.

- What challenges arose this week?

This week presented several significant challenges as we advanced our project. Integrating a new supplementary dataset proved more complex than anticipated. The additional data had inconsistent formatting, missing values, and required careful alignment with our existing Kalshi betting data to ensure temporal consistency. We spent considerable time creating robust data transformation pipelines to standardize formats and handle edge cases.

- What went well?

Some things that went well was we were able to achieve 92% prediction accuracy for our RF model on Kalshi betting lines. Additionally, data cleaning also went well.

- For each member: what were your main takeaways from the “breaking assumptions” exercise?

Aydan

The "breaking assumptions" exercise helped us recognize that quality data science work requires dedicated time blocks for exploration and refinement. Therefore, I've decided to research models that I believe can contribute to our project the most.

Sucbeer

My key takeaway was recognizing my assumption that everyone on the team shared the same technical knowledge base. This led me to communicate less thoroughly than I should have about my methodological choices. Going forward, I'm documenting my work more comprehensively and checking in with teammates to ensure alignment on technical approaches.

Ronald

I discovered I was assuming that our initial project scope was fixed and comprehensive. The exercise helped me see the value in remaining flexible and refining our objectives as we learn more about the data.

Leo

My assumption was that the project would be straightforward given our team's technical background. I've since invested time in learning best practices to ensure our project is presentable and accessible.

- For the group: what, if anything, will the group take away from “breaking assumptions”?

Our main takeaway if anything would be to communicate more often to dedicate time to onboarding project and the process.

At the end of the report, each team member should type their name (and optionally insert a signature) to indicate that they have read the final version of the report and assent to everything in it, including the teamwork contract.

Ronald Feng
Sucheer Maddury
Aydan Gerber
Leo Qian

Grading

You will be graded on a 5 star scale based on:

- How much of the report and code fulfills the milestone.
- The report is neat and readable.
- The code is neat and readable.
- The Git commits are descriptive.
- The milestone is submitted in a timely manner.