Golf Forecasting: Week 8 Status Update
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Project Timeline

Task	Week 1 (6/25)	Week 2 (7/2)	Week 3 (7/9)	Week 4 (7/16)	Week 5 (7/23)	Week 6 (7/30)	Week 7 (8/6)	Week 8 (8/13)	Week 9 (8/20)	Week 10 (8/26)
Research and project scope	☑️	☑️	☑️							
Project overview, plan, goals & KPIs			☑️							
Data collection			☑️	☑️						
Exploratory data analysis				☑️	☑️					
Data preparation				🟨	☑️					
Model experimentation					🟨	☑️	☑️	☑️		
Finalize models, aggregate outputs							🟨	☑️		
Prototype app/dashboard							🟨	🟩	🟩	
Deployment								🟨	🟩	
Final Paper & Presentation									🟩	🟩

☑️ = complete
🟩 = on track
🟨 = delayed

Accomplishments

- Modification of project scope
    - Decision made to simulate only the four major tournaments and predict overall earnings, rather than simulate all tournaments and calculate earnings based on those results
        - The amount of business logic necessary to capture the nuances of players who may actually participate in tournaments, point allocation for the Fedex Cup playoffs, and advancement in each round of the playoffs would be too complex to implement within the timeframe
        - The updated approach demonstrates how tournament simulation can be done with the player projections and still achieves an accurate estimation of expected earnings
    - Decision made not to include projections of skill components (ie breaking overall skill into off-the-tee, approach, around-the-green and putting) in forecasts
        - Only 60% of PGA tournaments actually have data at that level of detail, so the accuracy of those models is significantly worse than the “overall skill” model
        - Each player will have differing amounts of rounds played with data at this level of detail, so we would need to devise a method to combine the overall skill projections with the component projections. This would take a non-trivial amount of time and would have taken away from the time spent on tournament projections and earnings.
- Modeling
    - Identified and developed three new models that were necessary to accomplish project goals
        - Attrition probability: probability a player drops out of the PGA tour
        - Promotion probability: probability a player on the Korn Ferry tour is promoted to the PGA tour in the next season
        - Earnings: predict (real) season earnings based on overall skill level and other variables
    - All required models and outputs complete
        - Adjusted strokes gained
        - In-sample latent skill
        - Aging curve
        - Future latent skill
        - Tournament simulation (majors only)
        - Attrition probability
        - Promotion probability
        - Earnings

Next Steps

1. Finish RShiny application

2. Deploy ETL pipeline
3. Deploy Application
4. Time permitting, work on clustering and player comparisons and add to the application (not a requirement)
5. Writeup and presentation

Summary of Risks and Issues

Risk/Issue	Description	Severity
Deployment of engineering pipeline	Should be able to complete within the next two weeks	
Modeling of future tournament outcomes	Solved	