**Research Task 7: Ethical Implications of Decision Making**

**Welcome**

In previous periods, we asked our favorite LLM to create narratives, stories, or textual summaries of datasets and a “deep fake” audio or video of the obtained stories. For example, in my attempt, I used seasonal statistics from an SU sports team and asked the LLM for recommendations for the upcoming season.

In this research task your job is to take that LLM-produced narrative and turn it into a stakeholder-facing decision report — but with an emphasis on ethics, reliability, and process documentation.

**Core assignment.**

* Start from the narrative you generated previously (or generate one again if needed).
* Produce a written report to human stakeholders (e.g., coach, athletic director, club director) containing actionable recommendations and a rigorous ethical/legal analysis of those recommendations.
* Document your entire process thoroughly so a third party can reproduce and audit your work.

**Guidance:**

* Define stakeholder & decision context. Who are you writing to, what decision do they need to make, and what is at stake (low/medium/high risk)? Document this explicitly.
* Data provenance & scope. Where did the data come from? Who collected it? Are there privacy concerns? Summarize lineage and known limitations.
* Re-create / validate descriptive results. Reproduce the basic stats and visuals that underpinned the original LLM narrative. Log code and random seeds.
* LLM prompt & transcript capture. Save every prompt and raw output. Keep an annotated version showing edits you made to the LLM output (what you changed and why).
* Quantify uncertainty. Compute confidence intervals, bootstrap estimates, cross-validation, or other uncertainty measures relevant to the claims the LLM makes.
* Sanity checks & domain validation. Run statistical tests (e.g., significance tests, effect sizes), examine missingness, outliers, and check for data leakage.
* Bias & fairness checks. Look for subgroup disparities, under-representation, and any fairness metrics relevant to the dataset (e.g., disparate impact).
* Robustness & sensitivity. Try simple perturbations (remove top N observations, change normalization, re-run model) to see if recommendations hold.
* Decide on recommendation tiers. Create a two/three-tier recommendation structure:
* Operational (low risk): small actions that can be taken quickly.
* Investigatory (medium risk): further data collection or controlled trials.
* High-stakes (high risk): actions requiring human/HR/legal review (e.g., personnel changes).
* Write the stakeholder report. Use clear language, include an explicit uncertainty statement and a one-sentence action recommendation, and label any LLM-generated text.
* Archive everything. Push final repo and email link to jrstrome@syr.edu.

**What to include in the stakeholder report (structure & sample phrasing)**

* Title & one-line purpose
* Executive summary (≤ 300 words) — list recommended actions and risk levels.
* Example: “Recommendation: Provide targeted coaching to Player X (low risk). Rationale: consistent decline in shot accuracy after minute 30; bootstrap CI excludes zero effect. Confidence: moderate (see Methods).”
* Background & decision question
* Data & methods (brief)
* Findings (with visualizations and uncertainty)
* Recommendations (tiered by risk)
* Ethical / legal concerns
* Next steps & validation plan
* Appendices — raw LLM outputs, prompts, code, data lineage.
* Label LLM content clearly. e.g., “The text below was generated by an LLM (model: GPT-4o; prompt file: prompts/recommend\_coach.txt). The analysis that follows indicates where we verified each claim.”

As always, I am less concerned with the **final report** and more interested in your **process:** how you approached the task. Document your process thoroughly.

**Important Reminder**  
When communicating with me, please use my email address ([**jrstrome@syr.edu**](mailto:jrstrome@syr.edu)) and not Dr. Stromer-Galley’s. Our names and email addresses are similar, so I want to avoid confusion.

**Submission Instructions**

* Create a public GitHub repository titled: **Task\_07\_Decision\_Making**
* Include supporting material such as scripts, prompts, and a README.md file
* Submit the repository link to me at [**jrstrome@syr.edu**](mailto:jrstrome@syr.edu)

**Time Reporting Requirement**  
It is critical that you report your research progress through the Qualtrics survey. This is how we track OPT activity for government reporting. Please complete these check-ins promptly.

* Report progress by **October 1st**
* Ensure all reporting from prior periods has also been submitted [Qualtrics Reporting Form](https://syracuseuniversity.qualtrics.com/jfe/form/SV_cDgnzM695AMx8d8)