Cornell
SC Johnson College of Business

NBA4920/6921: AI for Business Applications

Course Project Description

Note: This document summarizes discussions we have had in class about the project. As such, it might not have all the details we discussed in class, but hopefully captures important ones.

Motivation: The motivation for this project is to add to your portfolio tangible evidence of having taken a course in AI for business. A *lot* of "bystanders" portray a deep understanding of AI without having any. This project will help set you apart from these bystanders.

Deliverable and format: The deliverable for this project will be a 5 minute in-class presentation (similar to a short startup pitch) by one or more group members with the following format:

- **Slide 1:** Project title, your name or names of your group members
- **Slide 2-5:** The business and the AI problem [4 minutes]
  - What is the business problem you are trying to solve? Who does it benefit and how?

    Example: The business problem we are trying to solve is reducing the costs we incur due to credit card chargebacks from consumers. This benefits us by reducing operational costs.
  - What is the AI problem you are trying to solve? Why is this an AI problem (eg. does solving the business problem require predicting something before it happens, and/or does it require doing something that is too difficult to do manually and at scale, etc.)?

    Example: The AI problem we are trying to solve is predicting whether a credit card transaction on AirBnb is a fraudulent transaction. This is an AI problem because we are proactively forecasting whether a chargeback might occur before it actually does.
  - What data will you need to solve this problem (the data must be feasible to acquire)?

    Example: The data we need is historical transactions on AirBnb and labels of whether they were fraudulent transactions (i.e. led to a chargeback) or not. This is feasible to acquire, because consumers naturally generate this data as they use the AirBnb platform.
  - How would you evaluate your AI model before deploying it to consumers?

    Example: We would hold out a test subset of our data and evaluate the model's performance, and also detail the potential costs and benefits of deploying this model with various risk thresholds.
- **Slide 6:** Demo of a prototype (can be live, or a recorded video, screenshots, etc.) [1 minute]
- **Post-presentation Questions:** By your peers, moderated by me [2 minutes]

Rubric: This project will account for 40 points awarded based on the following rubric:

- **Time:** 5 points for not exceeding the 5 minute time limit, 0 otherwise
- **Format:** 5 points if the slides stick to the deliverable format, 0 otherwise. *Extra slides* are OK as long as the presentation does not exceed the time limit.
- **Is this an AI problem with feasible data available to solve it?** 5 + 5 (problem + data) points if the problem considered is a good fit for AI, and if the data is feasible for *someone* to collect and use. Partial points otherwise, based on the extent of issues.
- **Evaluation protocol.** 10 points if the pre-deployment evaluation protocol is well thought through to avoid deploying a poorly-designed or poor-performing to real consumers. Partial points otherwise, based on the extent of issues. Simply relying on manual evaluation = 0.
- **Demo:** Live demos get 10 points (high risk, high reward), recorded videos get 7 points (low risk, moderate reward), screenshots and other demo types get 5 points (low risk, low reward). Live demos are risky: we can have poor internet in class, OpenAI goes down, etc..

Project development assistance: Once you have figured out the problem, why it is a good fit for AI, and how to evaluate the AI model before deploying it, the course staff will help you implement a demo. I will make a Canvas announcement to set up times to work with me.

Frequently Asked Questions: Section to be updated based on questions received (if any).

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