## Schedule

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## **Topic**

Certainly, "Data Science and Business Analysis" is an important topic that explores the intersection of data-driven decision -making and business strategy. Here are some general questions we can have a discussion on this topic:

- 1. Data science and business analysis are often seen as complementary disciplines. Can you explain the role of each in the context of driving business success, and how do they work together?
  - Largely a difference in orientation; a data scientist will come at a problem from the underlying DGP, a business analyst will approach it from principles of business.
  - When reality departs from 'business as usual' a DS can use the data to navigate
  - Similarly, when the data is bad, an analyst can use principles to interpret it.
- 2. Could you share examples of how data science and business analysis have been instrumental in solving critical business challenges or seizing opportunities?
  - Anti-fraud / identity theft
  - Multi armed bandits / online ads
  - COVID19 response
  - Credit models / subprime lending
- 3. Data is often described as a valuable asset for businesses. What strategies can organizations employ to effectively collect, manage, and utilize data to gain a competitive advantage?
  - I would push back on this.
  - Data often has significant expenses from collection, storage and processing.
  - And real risks eg getting hacked
  - (Tangible) value comes from people (businesses) acting (differently) based on the analysis.
    - o If nothing changes, was the data worth having and doing all that work?
- 4. How does data-driven decision-making impact various aspects of a business, from marketing and customer engagement to operations and finance?
  - Importance of counterfactuals
  - In many orgs, marketing and CX/CE are flying blind and don't know if their projects are working
  - Operations & finance typically more risk-aware but may have strong assumptions about "doing business"
- 5. Data science involves advanced analytics and machine learning. How can businesses, regardless of their size, harness the power of these technologies to improve operations and customer experiences?
  - Smaller businesses will typically outsource or use vendors, they need to hold them accountable and demand results do not treat IT as a slush fund.
  - Larger businesses performing this in house need to be able to manage those people and processes the specific technologies will come and go

- 6. Business analysts often serve as intermediaries between stakeholders and data scientists. What skills and qualities are essential for effective business analysis, and how can this role bridge the gap between business needs and data solutions?
  - As a filter / translator, needs both intuition and tact/EQ
  - "Good explainer"
  - However, beware the expert of none, beware the scrum master, (cf office space layoff)
- 7. Ethics and responsible data usage are important considerations. What principles and practices should businesses follow to ensure they handle data ethically and responsibly?
  - I don't consider data ethics particularly special, or different or separate from business ethics or personal ethics.
  - That said, companies that do not respect people enough to be careful with their data should be prepared for blowback.
    - The public attitude has shifted against companies that play fast and loose.
    - Be prepared for more regulations
- 8. Data science projects often require collaboration across departments. How can organizations foster a data-centric culture and encourage interdisciplinary teamwork to maximize the value of data?
  - Single source of truth
    - o avoid working from many different versions of data
  - Presentations / Reporting
  - Show your work
  - Name your assumptions
  - "Yes, and ..."
- 9. Data-driven decision-making also involves visualization and communication of insights. What tools and techniques can businesses use to effectively communicate data findings to non-technical stakeholders?
  - Uncertainty
    - o Error bars
    - Standardized language
  - Counterfactuals and causal
    - Scenarios and What-if
    - Decomps and duetos
  - Move beyond age/gender/race/zip demographics
  - Move beyond last touch attribution
  - Move beyond one-way AB testing
- 10. Looking ahead, what trends and innovations do you foresee in the field of data science and business analysis, and how might they impact the way organizations operate?
  - Regulations particularly watch DC and California, particularly for adverse action
  - Parsimony last few years have been about scaling up via brute force, but can we get equivalent performance from smaller models?
  - On-prem homecoming clouds have raised prices / rent-seeking, not as good a deal as before, still have unpleasant APIs to work with, and significant lock-in.
  - NJF Prediction: Major study fails to replicate/reproduce in a hard science
  - NJF Prediction: Election 2024 causes / correlates to "filter bubble mitosis" and mass departure from mega-user-platforms.