Additional Material
(Contingent on Time)

Ethical Considerations in NLP

- Use balanced, representative datasets to reduce bias.
- Remove personal identifiers and follow data privacy laws (e.g., GDPR).
- Ensure transparency and explainability of model decisions.
- Prevent misuse for misinformation, spam, or harmful content.
- Support low-resource languages to promote inclusivity.
- Focus on AI augmentation, not full replacement of human jobs.
- Protect models against adversarial attacks and vulnerabilities.
- Provide model cards and dataset documentation for accountability.
- Keep a human-in-the-loop for critical applications.
- Continuously monitor, audit, and update deployed NLP systems.

NLP best Practices in Business

- **Define clear objectives:** Link NLP tasks (e.g., sentiment analysis, chatbots) to measurable business goals.
- **Curate high-quality data:** Ensure datasets are domain-specific, clean, and representative.
- **Preprocess consistently:** Apply normalization, stopword removal, and tokenization suited to your use case.
- **Choose the right model complexity:** Do not overuse deep models if simpler ones meet business needs.
- **Balance accuracy and interpretability:** Use explainable models for decisions that impact customers.

- **Automate but validate:** Automate workflows (customer support, text classification) but keep human oversight.
- **Account for multilingualism:** Support multiple languages if your business operates globally.
- **Respect privacy and compliance:** Handle customer data ethically and in line with GDPR/CCPA.
- **Monitor performance:** Track drift, accuracy, and customer satisfaction over time.
- **Assess ROI:** Evaluate cost savings, revenue impact, and efficiency improvements from NLP adoption.