

Ethics & Optimization

1. Ethical Considerations for Amazon Reviews Model

- Bias Risks:
 - *Language bias*: Non-English reviews misclassified.
 - *Product bias*: Popular brands (e.g., "Apple") dominate entity recognition.
- Mitigation Strategies:
 - Use `spaCy`'s `EntityRuler` to add underrepresented brands.
 - Apply `TensorFlow Fairness Indicators` to evaluate accuracy per demographic groups.

2. Troubleshooting Challenge

Common fixes for TensorFlow errors:

- Dimension Mismatch: Use `tf.reshape()` or `tf.expand_dims()`.
- Incorrect Loss: For multi-class classification, use `SparseCategoricalCrossentropy` (not `BinaryCrossentropy`).