The proposal should include the following points:

1. Introduction:

- Provide a brief overview of traditional weather forecasting models and their limitations.

- Highlight the potential of deep learning and transformer-based models in improving forecast accuracy.

- Emphasize the importance of understanding how these models arrive at their predictions for trust, accountability, and further model improvements.

2. Objective:

- Clearly state the objective of the challenge, which is to enhance the interpretability and trustworthiness of AI weather forecasting models by developing explainability techniques tailored to Transformer embeddings.

3. Approach:

- Data Exploration and Analysis:

- Explain the importance of exploring and analyzing the weather data used to train the AI weather forecasting models.

- Highlight that this step aims to gain insights into the patterns, trends, and relationships between different weather variables.

- Transformer Embeddings Understanding:

- Describe the use of pre-trained Transformer models fine-tuned on weather forecasting tasks.

- Explain that participants will analyze the embeddings generated by these models to understand how they encode information about weather patterns and features.

- Explainability Techniques Development:

- Emphasize the need for developing explainability techniques tailored to Transformer embeddings.

- Mention that these techniques will enhance model interpretability by providing insights into how specific weather events or patterns are represented in the embeddings and how they contribute to the final predictions.

- Evaluation and Interpretation:

- Describe the evaluation process for the developed explainability techniques using relevant metrics.

- Highlight the importance of interpreting the insights gained from these techniques.

- Mention that participants will assess the utility of their techniques in improving the interpretability and trustworthiness of weather forecasting models.

- Visualization Techniques:

- Encourage participants to implement visualization techniques tailored to weather forecasting data.

- Mention the inspiration from BertViz and explain that these techniques will visualize attention mechanisms and model predictions.

4. Expected Outcomes:

- Highlight the expected outcomes of the challenge, such as improved interpretability of weather forecasting models, enhanced trust in the predictions, and potential insights into weather patterns and features.

5. Methodology:

- Provide a high-level overview of the proposed methodology for the challenge implementation.

- Include details on the datasets to be used, the specific Transformer models and explainability techniques to be employed, and any other relevant technical details.

6. Timeline:

- Provide a timeline for the challenge, including key milestones and deadlines.

7. Evaluation Criteria:

- Clearly define the criteria for evaluating the developed explainability techniques.

- Mention relevant metrics to assess the effectiveness and utility of the techniques.

8. Resources:

- Specify the resources that will be made available to participants, such as weather datasets, pre-trained Transformer models, and any other necessary tools or libraries.

9. Conclusion:

- Summarize the proposal and reiterate the importance of improving the interpretability and trustworthiness of AI weather forecasting models.

- Highlight the potential impact of the challenge outcomes on the field of weather prediction.

Remember to tailor the proposal to the specific requirements and guidelines of the challenge you are applying for.