

Transformer Interpretability Beyond Attention Visualization

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Abstract

Self-attention techniques, and specifically Transformers, are dominating the field of text processing and are becoming increasingly popular in computer vision classification tasks. In order to visualize the parts of the image that led to a certain classification, existing methods either rely on the obtained attention maps, or employ heuristic propagation along the attention graph. In this work, we propose a novel way to compute relevancy for Transformer networks. The method assigns local relevance based on the deep Taylor decomposition principle and then propagates these relevancy scores through the layers. This propagation involves attention layers and skip connections, which challenge existing methods. Our solution is based on a specific formulation that is shown to maintain the total relevancy across layers. We benchmark our method on very recent visual Transformer networks, as well as on a text classification problem, and demonstrate a clear advantage over the existing explainability methods. Our code is available at: <https://github.com/hila-chefer/Transformer-Explainability>.

1. Introduction

Transformers and derived methods [39, 9, 21, 29] are currently the state of the art methods in almost all NLP benchmarks. The power of these methods has led to their adoption in the field of language and vision [22, 38, 36]. More recently, Transformers have become a leading tool in traditional computer vision tasks, such as object detection [4] and image recognition [6, 11].

The importance of Transformer networks necessitates tools for the visualization of their decision process. Such a visualization can aid in debugging the models, help verify that the models are fair and unbiased, and enable downstream tasks.

The main building block of Transformer networks are self-attention layers [28, 7], which assign a pairwise attention value between every two tokens. In NLP, a token is typically a word or a word part. In vision, each token can

be associated with a patch [11, 4]. A common practice when trying to visualize Transformer models is, therefore, to consider these attentions as a relevancy score [39, 41, 4]. This is usually done for a single attention layer. Another option is to combine multiple layers. Simply averaging the attentions obtained for each token, would lead to blurring of the signal and would not consider the different roles of the layers: deeper layers are more semantic, but each token accumulates additional context each time self-attention is applied. The rollout method [1] is an alternative, which reassigns all attention scores by considering the pairwise attentions and assuming that attentions are combined linearly into subsequent contexts. The method seems to improve results over the utilization of a single attention layer. However, as we show, by relying on simplistic assumptions, irrelevant tokens often become highlighted.

In this work, we follow the line of work that assigns relevancy and propagates it, such that the sum of relevancy is maintained throughout the layers [26]. While the application of such methods to Transformers has been attempted [40], this was done in a partial way that does not propagate attention throughout all layers.

Transformer networks heavily rely on skip connection and attention operators, both involving the mixing of two activation maps, and each leading to unique challenges. Moreover, Transformers apply non-linearities other than ReLU, which result in both positive and negative features. Because of the non-positive values, skip connections lead, if not carefully handled, to numerical instabilities. Methods such as LRP [3], for example, tend to fail in such cases. Self-attention layers form a challenge, since the two operands are of different dimensions, and since a naive propagation through these would not maintain the total amount of relevancy.

We handle these challenges by first introducing a relevancy propagation rule that is applicable to both positive and negative attributions. Second, we present a normalization term for non-parametric layers, such as “add” (e.g. skip-connection) and matrix multiplication. Third, we integrate the attention and the relevancy scores, and combine the integrated results for multiple attention blocks.

Many of the interpretability methods used in computer vision are not class specific in practice, *i.e.*, return the same visualization regardless of the class one tries to visualize, even for images that contain multiple objects. The class-specific signal, especially for methods that propagate all the way to the input, is often blurred by the salient regions of the image. Some methods avoid this by not propagating to the lower layers [31], while other methods contrast different classes to emphasize the differences [15]. Our method provides the class-based separation by design and it is the only Transformer visualization method, as far as we can ascertain, that presents this property.

Explainability, interpretability, and relevance are not uniformly defined in the literature [25]. For example, it is not clear if one would expect the resulting image to contain all of the pixels of the identified object, which would lead to better downstream tasks [20] and for favorable human impressions, or to identify the sparse image locations that cause the predicted label to dominate. While some methods offer a clear theoretical framework [23], these rely on specific assumptions and often do not lead to better performance on real data. Our approach is a mechanistic one and avoids the controversial issues. Our goal is to improve the performance on the acceptable benchmarks of the field. This goal is achieved on a diverse and complementary set of computer vision benchmarks, representing multiple approaches to explainability.

These benchmarks include image segmentation on a subset of the ImageNet dataset, as well as positive and negative perturbations on the ImageNet validation set. In NLP, we consider a public NLP explainability benchmark [10]. In this benchmark, the task is to identify the excerpt that was marked by humans as leading to a decision.

2. Related Work

Explainability in computer vision Many methods were suggested for generating a heatmap that indicates local relevancy, given an input image and a CNN. Most of these methods belong to one of two classes: gradient methods and attribution methods.

Gradient based methods are based on the gradient of the loss with respect to the input of each layer, as computed through backpropagation. The gradient is often multiplied by the input activations, which was first done in the Gradient*Input method [32]. Integrated Gradients [37] also compute the multiplication of the inputs with its derivatives. However, this computation is done on the average gradient and on a linear interpolation of the input. SmoothGrad [34], visualizes the mean gradients of the input, and performs smoothing by adding to the input image a random Gaussian noise at each iteration. The FullGrad method [35] offers a more complete modeling of the gradient by also considering the gradient with respect to the bias term, and not just with

respect to the input. We observe that these methods are all class agnostic: at least in practice, similar outputs are obtained, regardless of the class used to compute the loss that is being propagated.

The GradCAM method [31] is a class specific approach, which combines both the input features and the gradients of a network’s layer. Being class specific, and providing consistent results, this method is used by downstream applications, such as weakly-supervised semantic segmentation [20]. However, the method’s computation is based only on the gradients of the deepest layers. The result, obtained by upsampling these low-spatial resolution layers is coarse.

A second class of methods, the *Attribution propagation* methods, are justified theoretically by the Deep Taylor Decomposition (DTD) framework [26]. Such methods decompose, in a recursive manner, the decision made by the network, into the contributions of the previous layers, all the way to the elements of the network’s input. The Layer-wise Relevance Propagation (LRP) method [2], propagates relevance from the predicated class, backward, to the input image based on the DTD principle. This assumes that the rectified linear unit (ReLU) non-linearity is used. Since Transformers typically rely on other types of applications, our method has to apply DTD in a different way. Other variants of DTD include RAP [27], DeepLIFT [32], and DeepSHAP [23]. A disadvantage of these methods, is the class agnostic behavior observed in practice [19]. Class specific behavior is obtained by Contrastive-LRP (CLRP) [15] and Softmax-Gradient-LRP (SGLRP) [19]. In both cases, the LRP propagation results of the class to be visualized are contrasted with the results of all other classes, in order to emphasize the differences and produce a class dependent heatmap. Our method is class-specific by construction and not by adding additional contrasting stages.

Many that do not fall into these two main categories include saliency based methods [8, 33, 24, 46, 43, 45], Activation Maximization [12] and Excitation Backprop [44]. Perturbation methods [13, 14] consider the change to the decision of the network as small changes are applied to the input. Such methods are intuitive and applicable to black box models (no need to inspect either the activations nor the gradients). However, the process of generating the heat map is computationally expansive. In the context of Transformers, it is not clear how to apply these correctly to discrete tokens, such as in text. Shapley-value methods [23] have a solid theoretical justification. However, such methods suffer from a large computational complexity and their accuracy is often not as high as other methods. Several variants have been proposed, which improve both aspects [5].

Explainability for Transformers There are not many contributions that explore the field of visualization for Transformers and, as mentioned, many contributions em-

ploy the attentions themselves. This practice ignores most of the attention scores, as well as the parts of the networks that perform other types of computation. A self-attention head involves the computation of queries, keys and values. Reducing it only to the obtained attention scores (inner products of queries and keys) is myopic. Other layers are not even considered. Our method, in contrast, propagates through all layers from the decision back to the input.

LRP was applied for Transformers based on the premise that considering mean attention heads is not optimal due to different relevance of the attention heads in each layer [40]. However, this was done in a limiting way, in which no relevance scores were propagated back to the input, thus providing partial information on the relevance of each head. We note that the relevancy scores were not directly evaluated, only used for visualization of the relative importance and for pruning less relevant attention heads.

The main challenge in assigning attributions based on attentions is that attentions are combining non-linearly from one layer to the next. The rollout method [1] assumes that attentions are combined linearly and considers paths along the pairwise attention graph. We observe that this method often leads to an emphasize on irrelevant tokens, since even average attention scores can be attenuated. The method also fails to distinguish between positive and negative contributions to the decision. Without such a distinction, one can mix between the two and obtain high relevancy scores, when the contributions should have cancelled out. Despite these shortcomings, the method was already applied by others [11] in order to obtain integrated attention maps.

Abnar et al. [1] present, in addition to Rollout, a second method called attention flow. The latter considers the max-flow problem along the pair-wise attention graph. It is shown to be sometimes more correlated than the rollout method with relevance scores that are obtained by applying masking, or with gradients with respect to the input. This method is much slower and we did not evaluate it in our experiments for computational reasons.

We note this concurrent work [1] did not perform an evaluation on benchmarks (for either rollout or attention-flow) in which relevancy is assigned in a way that is independent of the BERT [9] network, for which the network was employed. There was also no comparison to relevancy assignment methods, other than the raw attention scores.

3. Method

The method employs LRP-based relevance to compute scores for each attention head in each layer of a Transformer model [39]. It then integrates these scores throughout the attention graph, by incorporating both relevancy and gradient information, in a way that iteratively removes the negative contributions. The result is a class specific visualization for self-attention models.

3.1. Relevance and gradients

Let C be the number of classes of the classification head, and $t \in 1 \dots |C|$ the class to be visualized. We propagate relevance and gradients with respect to class t , which is not necessarily the predicted class. Following literature convention, we denote $x^{(n)}$ as the input of layer $L^{(n)}$, where $n \in [1 \dots N]$ is the layer index in a network consists of N layers, $x^{(N)}$ is the input to the network, and $x^{(1)}$ is the output of the network.

Recalling the chain-rule, we propagate gradients with respect to the classifier’s output y , at class t , namely y_t :

$$\nabla x_j^{(n)} := \frac{\partial y_t}{\partial x_j^{(n)}} = \sum_i \frac{\partial y_t}{\partial x_i^{(n-1)}} \frac{\partial x_i^{(n-1)}}{\partial x_j^{(n)}} \quad (1)$$

where the index j corresponds to elements in $x^{(n)}$, and i corresponds to elements in $x^{(n-1)}$.

We denote by $L_i^{(n)}(\mathbf{X}, \mathbf{Y})$ the layer’s operation on two tensors \mathbf{X} and \mathbf{Y} . Typically, the two tensors are the input feature map and weights for layer n . Relevance propagation follows the generic Deep Taylor Decomposition [26] formulation:

$$\begin{aligned} R_j^{(n)} &= \mathcal{G}(\mathbf{X}, \mathbf{Y}, R^{(n-1)}) \\ &= \sum_i \mathbf{X}_j \frac{\partial L_i^{(n)}(\mathbf{X}, \mathbf{Y})}{\partial \mathbf{X}_j} \frac{R_i^{(n-1)}}{\sum_{j'} L_{j'}^{(n)}(\mathbf{X}, \mathbf{Y})}, \end{aligned} \quad (2)$$

where, similarly to Eq. 1, the index j corresponds to elements in $R^{(n)}$, and i corresponds to elements in $R^{(n-1)}$. Eq. 2 satisfies the conservation rule [26], i.e.:

$$\sum_j R_j^{(n)} = \sum_i R_i^{(n-1)} \quad (3)$$

LRP [2] assumes ReLU non-linearity activations, where the relevance propagation rule is defined as follows:

$$\begin{aligned} R_j^{(n)} &= \mathcal{G}(x^+, w^+, R^{(n-1)}) + \mathcal{G}(x^-, w^-, R^{(n-1)}) \\ &= \sum_i \frac{x_j^+ w_{ji}^+}{\sum_{j'} x_{j'}^+ w_{j'i}^+} R_i^{(n-1)} + \sum_i \frac{x_j^- w_{ji}^-}{\sum_{j'} x_{j'}^- w_{j'i}^-} R_i^{(n-1)} \end{aligned} \quad (4)$$

where $\mathbf{X} = x$ and $\mathbf{Y} = w$ are the layer’s input and weights. The superscript denotes the operation $\max(0, v)$ for v^+ , and $\min(0, v)$ for v^- .

Non-linearities other than ReLU, such as GELU [17], output both positive and negative values. We note that applying LRP to networks with non-linearities, such as GELU breaks the conservation rule (Eq. 3), since each of the two sums is normalized independently, resulting in:

$$\sum_j R_j^{(n)} = 2 \sum_i R_i^{(n-1)} \neq \sum_i R_i^{(n-1)} \quad (5)$$

To address this, our method constructs a subset of indices $q = \{(i, j) | x_j w_{ji} \geq 0\}$, resulting in the following relevance propagation:

$$\begin{aligned} R_j^{(n)} &= \mathcal{G}_q(x, w, q, R^{(n-1)}) \\ &= \sum_{(i,j) \in q} \frac{x_j w_{ji}}{\sum_{\{j' | (j', i) \in q\}} x_{j'} w_{j'i}} R_i^{(n-1)} \end{aligned} \quad (6)$$

In other words, we consider only the elements that have a positive weighed relevance. Notice that while we mentioned that equation 4 does not satisfy the conservation rule, equation 6 satisfies the conservation rule for inputs with both positive and negative values.

To initiate the relevance propagation, we set

$$R^{(0)} = \mathbb{1}_t, \quad (7)$$

where $\mathbb{1}_t$ is a one-hot indicating the target class t .

3.2. Non parametric relevance propagation:

There are two operators in Transformer models that involve mixing of two feature map tensors (as opposed to a feature map with a learned tensor): skip connections and matrix multiplications (*e.g.* attention modules). The two operators require the propagation of relevance through both input tensors. Note that the two tensors may be of different shapes, as is the case in matrix multiplication.

Given two tensors u and v , we compute the relevance propagation of these binary operators (*i.e.*, operators that process two operands) as follows:

$$\begin{aligned} R_j^{u(n)} &= \mathcal{G}(u, v, R^{(n-1)}) \\ R_k^{v(n)} &= \mathcal{G}(v, u, R^{(n-1)}) \end{aligned} \quad (8)$$

where $R_j^{u(n)}$ and $R_k^{v(n)}$ are the relevance for u and v respectively. While LRP results in positive relevance values, these operations yield both positive and negative values.

The following lemma shows that for the case of addition, the conservation rule is obtained, *i.e.*,

$$\sum_j R_j^{u(n)} + \sum_k R_k^{v(n)} = \sum_i R_i^{(n-1)}. \quad (9)$$

However, this is not the case for matrix multiplication.

Lemma 1. *Given two tensors u and v , consider the relevances that are computed according to Eq. 1. Then, (i) if layer $L^{(n)}$ adds the two tensors, *i.e.*, $L^{(n)}(u, v) = u + v$ then the conservation rule of Eq. 2 is maintained. (ii) if the layer performs matrix multiplication $L^{(n)}(u, v) = uv$, then Eq. 2 does not hold in general.*

Proof. (i) and (ii) are obtained from the output derivative of $L^{(n)}$ with respect to \mathbf{X} . In an add layer, u and v are independent of each other, while in matrix multiplication they are connected. A detailed proof of Lemma 3 is available in the supplementary. \square

When propagating relevance of skip connections, we encounter numerical instabilities. This arises despite the fact that, by the conservation rule of the addition operator, the sum of relevance scores is constant. The underlying reason is that the relevance scores tend to obtain large absolute value due to the way they are computed (Eq. 2). To see this, consider the following example:

$$u = \begin{pmatrix} e^a \\ e^b \end{pmatrix}, v = \begin{pmatrix} 1 - e^a \\ 1 - e^b \end{pmatrix}, R = \begin{pmatrix} 1 \\ 1 \end{pmatrix} \quad (10)$$

$$R^u = \begin{pmatrix} \frac{e^a}{e^a - e^a + 1} \\ \frac{e^b}{e^b - e^b + 1} \end{pmatrix} = \begin{pmatrix} e^a \\ e^b \end{pmatrix}, R^v = \begin{pmatrix} 1 - e^a \\ 1 - e^b \end{pmatrix} \quad (11)$$

where a and b are large positive numbers. It is easy to verify that $\sum R^u + \sum R^v = e^a + 1 - e^a + e^b + 1 - e^b = \sum R$. As can be seen, while the conservation rule remains valid, the relevance of u and v may explode. See supplementary for a step by step computation.

To address the lack of conservation in the attention mechanism, which employs multiplication, and the numerical issues of the skip connections, our method applies a normalization to $R_j^{u(n)}$ and $R_k^{v(n)}$:

$$\begin{aligned} \bar{R}_j^{u(n)} &= R_j^{u(n)} \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u(n)}} \\ \bar{R}_k^{v(n)} &= R_k^{v(n)} \frac{\sum_k |R_k^{v(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_k R_k^{v(n)}} \end{aligned}$$

Following the conservation rule (Eq. 3), and the starting relevance (Eq. 7), we obtain $\sum_i R_i^{(n)} = 1$ for each layer n .

The following lemma presents the properties of the normalized relevancy scores.

Lemma 2. *The normalized relevance scores $\bar{R}_j^{u(n)}$ and $\bar{R}_k^{v(n)}$ have the following properties: (i) it maintains the conservation rule $\sum_j \bar{R}_j^{u(n)} + \sum_k \bar{R}_k^{v(n)} = \sum_i R_i^{(n-1)}$, (ii) it bounds the relevance sum of each tensor*

$$0 \leq \sum_j \bar{R}_j^{u(n)}, \sum_k \bar{R}_k^{v(n)} \leq \sum_i R_i^{(n-1)} \quad (12)$$

Proof. See supplementary. \square

3.3. Relevance and gradient diffusion

Let M be a Transformer model, consisting of B block, where each block is composed of self-attention, skip connections and additional linear and normalization layers in a certain assembly. The model takes as an input a sequence of length s tokens of dimension d , with a special token for the classification output, commonly defined by the token

[CLS], and outputs a classification probability vector y of length C , computed from the classification token vector. The self-attention module operates on a small sub-spaces d_h of the input dimension d , where h is the number of “heads”, and $hd_h = d$. The self-attention module is defined as follows:

$$\mathbf{A}^{(b)} = \text{softmax}(\mathbf{Q}^{(b)} \cdot \mathbf{K}^{(b)T}) \quad (13)$$

$$\mathbf{O}^{(b)} = \mathbf{A}^{(b)} \cdot \mathbf{V}^{(b)} \quad (14)$$

where (\cdot) denotes matrix multiplication, $\mathbf{O}^{(b)} \in \mathbb{R}^{h \times s \times d_h}$ is the output of the attention module in block b , $\mathbf{Q}^{(b)}, \mathbf{K}^{(b)}, \mathbf{V}^{(b)} \in \mathbb{R}^{h \times s \times d_h}$ are the query key and value inputs in block b , namely, different projections of an input $x^{(n)}$ for a self-attention module. $\mathbf{A}^{(b)} \in \mathbb{R}^{h \times s \times s}$ is the attention map of block b , where each row represents the attention coefficient of each token with respect to the row’s token. The *softmax* in Eq. 13 is applied on the last dimension, such that the sum of the rows of each slice (fixing the first index, which indicates the head) of $\mathbf{A}^{(b)}$ is one.

Following the propagation procedure of relevance and gradients, each attention map $\mathbf{A}^{(b)}$ has its gradients $\nabla \mathbf{A}^{(b)}$, and relevance $R^{(nb)}$, with respect to a target class t . Assuming the *softmax* layer correspond to some layer n , we denote by n_b the layer index corresponds to the the *softmax* layer of block b .

The final output $\mathbf{C} \in \mathbb{R}^{s \times s}$ of our method is then defined by the weighted attention relevance:

$$\bar{\mathbf{A}}^{(b)} = I + \mathbb{E}_h(\nabla \mathbf{A}^{(b)} \odot R^{(nb)})^+ \quad (15)$$

$$\mathbf{C} = \bar{\mathbf{A}}^{(1)} \cdot \bar{\mathbf{A}}^{(2)} \cdot \dots \cdot \bar{\mathbf{A}}^{(B)} \quad (16)$$

where \odot is the Hadamard product, and \mathbb{E}_h is the mean across the “heads” dimension. In order to compute the weighted attention relevance, we consider only the positive values of the gradients-relevance multiplication, resembling positive relevance. To account for the skip connections in the Transformer block, we add the identity matrix to avoid self inhibition for each token.

For comparison, using the same notation, the rollout [1] method is given by:

$$\hat{\mathbf{A}}^{(b)} = I + \mathbb{E}_h \mathbf{A}^{(b)} \quad (17)$$

$$\text{rollout} = \hat{\mathbf{A}}^{(1)} \cdot \hat{\mathbf{A}}^{(2)} \cdot \dots \cdot \hat{\mathbf{A}}^{(B)} \quad (18)$$

We can observe that rollout is fixed given an input sample, regardless of the target class to be visualized. In addition, it does not consider any signal, except for the pairwise attention scores.

3.4. Obtaining the image relevance map

The resulting explanation of our method is a matrix \mathbf{C} of size $s \times s$, where s represents the sequence length of the

sequence fed to the Transformer. Each row corresponds to a relevance map for each token given the other tokens - following the attention computation convention in Eq. 16, 13. As this work focuses on classification models, the [CLS] token, which encapsulates the explanation of the classification, is considered. The relevance map is, therefore, derived from the row $\mathbf{C}_{[\text{CLS}]} \in \mathbb{R}^s$ that corresponds to the [CLS] token as our relevance map. This row contains a score evaluating each token’s influence on the classification token.

We consider only the tokens that correspond to the input text, without special tokens such as the CLS and other separators. In vision models, such as ViT [11], the content tokens represent image patches. To obtain the final relevance map, we reshape the sequence to the patches grid size, *e.g.* for a square image, the patch grid size is $\sqrt{s-1} \times \sqrt{s-1}$. This map is upsampled back to the size of the original image using bi-linear interpolation.

4. Experiments

For the linguistic classification task, we experiment with the BERT-base [9] model, as our classifier, assuming a maximum of 512 tokens, and a classification token [CLS] that is used as the input to the classification head.

For the visual classification task, we experiment with the pretrained ViT-base [11] model, which consists of a BERT-like model. The input is a sequence of all non-overlapping patches of size 16×16 of the input image, followed by flattening and linear layers, to produce a sequence of vectors. Similar to BERT, a classification token [CLS] is appended at the beginning of the sequence and used for classification.

The **baselines** are divided into three classes: attentions-map, relevance, and gradients based methods. Each has different properties and assumptions over the architecture and propagation of information in the network. To best reflect the performance of different baselines, we focus on methods that are both common in the explainability literature, and applicable to the extensive tests we report in this section, *e.g.* Black-box methods such as Perturbation and Shapely based methods are computationally too expensive and inherently different from the proposed method. We briefly describe each baseline in the following section, and the different experiments for each domain.

The attention-map baselines include rollout [1] follows Eq. 18, to produce an explanation that takes into account all the different attention-maps computed along the forward-pass of the network. A more straightforward method is using the attention map of block 1 to extract the relevance scores. These methods are class-agnostic by definition.

Unlike attention-map based methods, the relevance propagation methods consider the information flow through the entire network, and not just the attention maps. These baselines include Eq. 4 and the partial application of LRP that follows [40]. As we show in our experiments, the different

variants of the LRP method are practically class agnostics, meaning the visualization remains approximately the same for different target classes.

A common class specific explanation method is Grad-CAM [31], which computes a weighted gradient-feature-map to the last convolution layer in a CNN model. The best way we found to apply GradCAM was to treat the last attention layer’s [CLS] token as the designated feature map, without considering the [CLS] token itself. We note that the last output of a Transformer model (before the classification head), is a tensor $v \in \mathbb{R}^{s \times d}$, where the first dimension relates to different input tokens, and only the [CLS] token is fed to the classification head. Thus, performing Grad-CAM on v will impose a sparse gradients tensor ∇v , with zeros for all tokens, except [CLS].

Evaluation settings For the visual domain, we follow the convention of reporting results for negative and positive perturbations, as well as showing results for segmentation, which can be seen as a general case of “The Pointing-Game” [18]. The dataset used is the validation set of ImageNet [30] (ILSVRC) 2012, consisting of 50K images from 1000 classes, and an annotated subset of ImageNet called ImageNet-Segmentation [16], containing 4,276 images from 445 categories. For the linguistic domain, we follow Eraser [10], and evaluate the reasoning for Movies Reviews [42] dataset, consists of 1600/200/200 reviews for train/val/test. This task is a binary sentiment analysis task. Providing explanations for the question answering and entailment tasks of the other datasets in Eraser, which require input sizes of more than 512 tokens (the limit of our BERT model), it is left for future work.

The positive and negative perturbation tests follow a two stage setting. First, a pre-trained network is used for extracting visualizations for the validation set of ImageNet. Second, we gradually mask out the pixels of the input image, and measure the mean top-1 accuracy of the network. In positive perturbation, pixels are masked from the highest relevance to the lowest, while in the negative version, from lowest to highest. In positive perturbation, one expects to see a steep decrease in performance, which indicates that the masked pixels are important to the classification score. In negative perturbation, a good explanation would maintain the accuracy of the model while removing pixels that are not related to the class. In both cases, we measure the area-under-the-curve (AUC), for erasing between 10% – 90% of the pixels.

The two tests can be applied on the predicted or the ground-truth class. Class-specific methods are expected to gain performance in the latter case, while class-agnostic methods would present similar performance in both tests.

The segmentation tests consider each output visualisation as soft-segmentation of the image, and compare it to the ground truth segmentation maps of the ImageNet-

Segmentation dataset. Performance is measured by (i) pixel-accuracy, obtained after thresholding each visualisation by the mean value, (ii) mean-intersection-over-union (mIoU), and (iii) mean-Average-Precision (mAP), which uses the soft-segmentation to obtain a score that is threshold-agnostic.

The NLP benchmark follows the evaluation setting of Eraser [10] for rationals extraction, where the goal is to extract parts of the input that support the (ground truth) classification. The BERT model is first fine tuned on the training set of the Movie Reviews Dataset and the various evaluation methods are applied to its results on the test set. We report the token-F1 score, which is best suited for per-token explanation (in contrast to explanations that extract an excerpt). To best illustrate the performance of each method, we consider a token to be part of the “rationals” output if it is part of the top- k tokens, and show results for $k = 10 \dots 80$ in steps of 10 tokens. This way, we do not employ a thresholding method that may benefit one method over the others.

4.1. Results

Qualitative evaluation Fig. 1 presents a visual comparison between our method and the various baselines. As can be seen, the baseline methods produce inconsistent performance, while our method results in a much clearer and consistent visualization.

In order to show that our method is class-specific, we show in Fig. 2 images with two objects, each from a different class. As can be seen, all methods except GradCAM produce similar visualization for each class, as expected, while our method provides two different and accurate visualization maps.

Perturbation tests Tab. 1 presents the AUC obtained for both negative and positive perturbation tests, for both the predicted and the target class. As can be seen, our method achieves better performance in both tests, where LRP for the last attention $\mathbf{A}^{(1)}$ and rollout perform similarly in the predicted-class test. Notice that because rollout produces constant visualization given an input image, we omit these scores for rollout in the target-class test.

Segmentation The segmentation metrics (pixel-accuracy, mAP, and mIoU) on ImageNet-segmentation are shown in Tab. 2. As can be seen, our method outperforms all baselines by a significant margin.

Language reasoning Fig. 2 depicts the performance on the Movie Reviews “rationals” experiment, evaluating for top- K tokens, ranging from 10 to 80. As can be seen, while all methods benefit from increasing the amount tokens, our method consistently outperform the baselines. See supplementary for a depiction of the obtained visualization.

Ablation study. We consider three variants of our method and present their performance on the segmentation and pre-

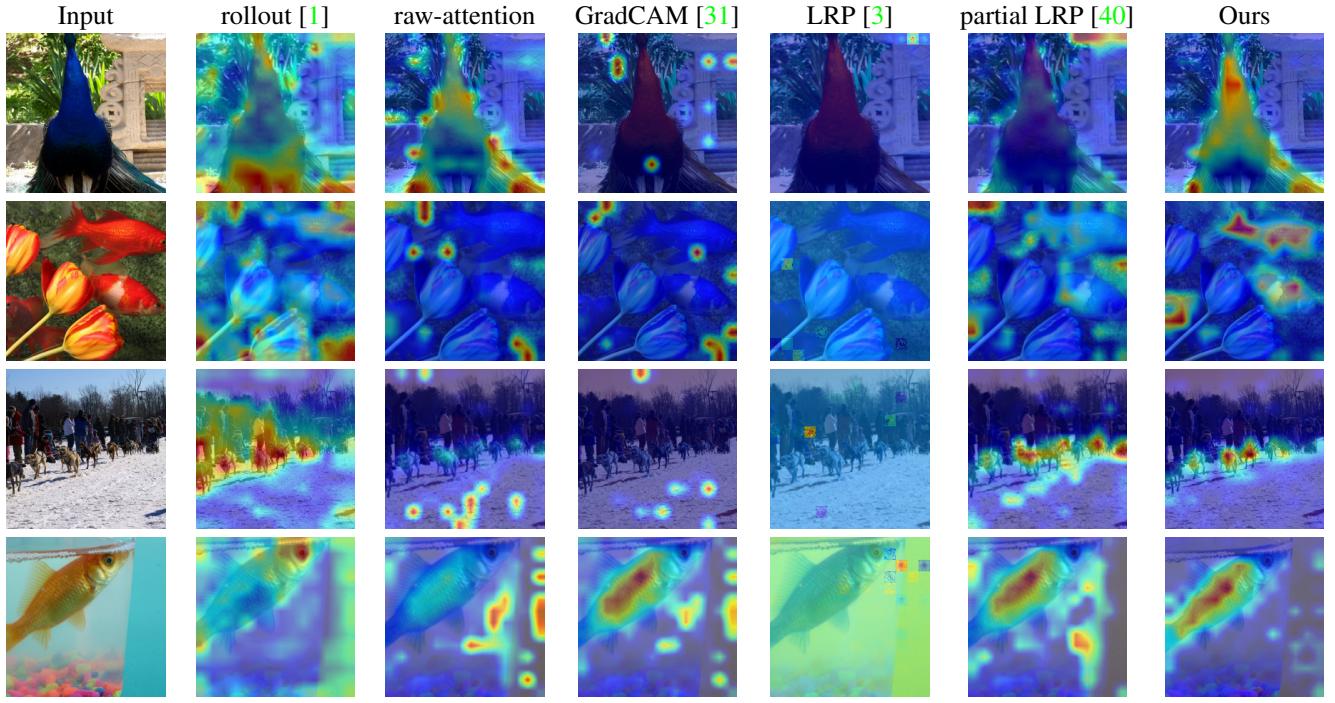


Figure 1: Sample results. As can be seen, our method produces more accurate visualizations.

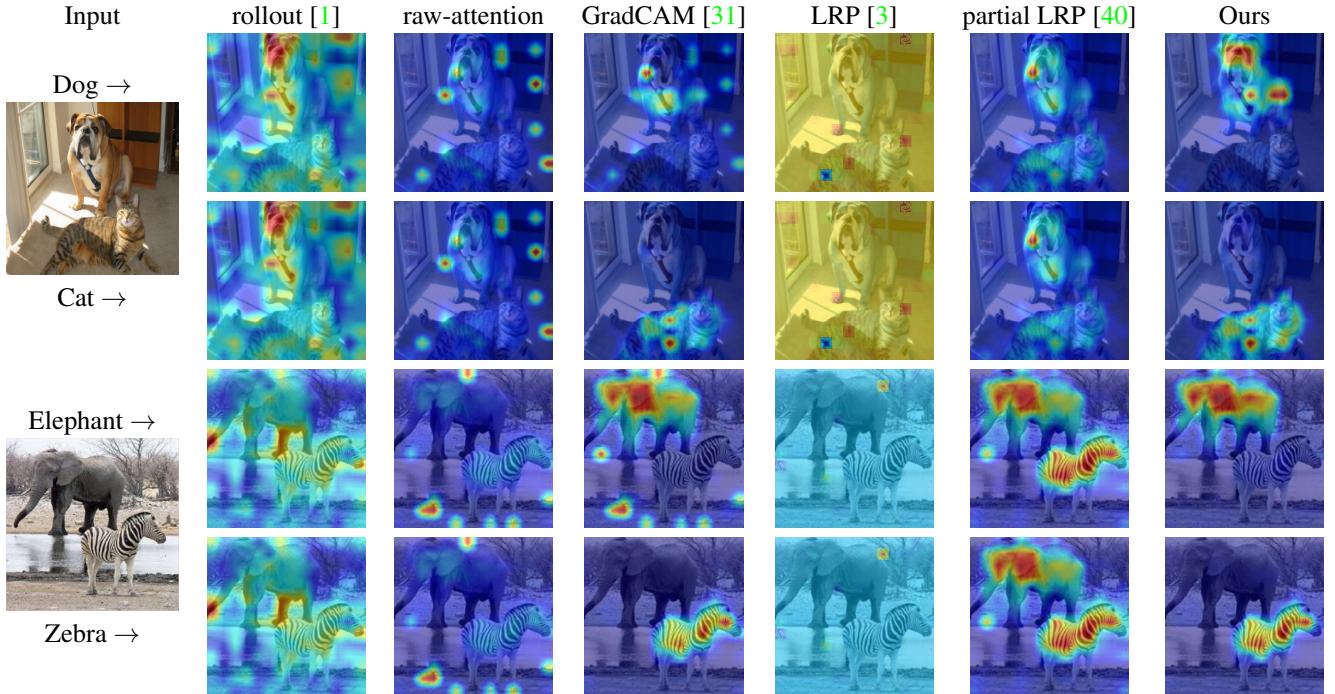


Figure 2: Class specific visualizations. For each image we present results for two different classes. GradCam is the only method to generate different maps. However, its results are not convincing.

| | | rollout [1] | raw attention | GradCAM [31] | LRP [3] | partial LRP [40] | Ours |
|----------|-----------|-------------|---------------|--------------|---------|------------------|--------------|
| Negative | Predicted | 53.1 | 45.55 | 41.52 | 43.49 | 50.49 | 54.16 |
| | Target | - | - | 42.02 | 43.49 | 50.49 | 55.04 |
| Positive | Predicted | 20.05 | 23.99 | 34.06 | 41.94 | 19.64 | 17.03 |
| | Target | - | - | 33.56 | 41.93 | 19.64 | 16.04 |

Table 1: Positive and Negative perturbation AUC results (percents) for the predicted and target classes, on the ImageNet [30] validation set. For positive perturbation lower is better, and for negative perturbation higher is better.

| | rollout [1] | raw attention | GradCAM [31] | LRP [3] | partial LRP [40] | Ours |
|----------------|-------------|---------------|--------------|---------|------------------|--------------|
| pixel accuracy | 73.54 | 67.84 | 64.44 | 51.09 | 76.31 | 79.70 |
| mAP | 84.76 | 80.24 | 71.60 | 55.68 | 84.67 | 86.03 |
| mIoU | 55.42 | 46.37 | 40.82 | 32.89 | 57.94 | 61.95 |

Table 2: Segmentation performance on ImageNet-segmentation [16] dataset (percent). Higher is better.

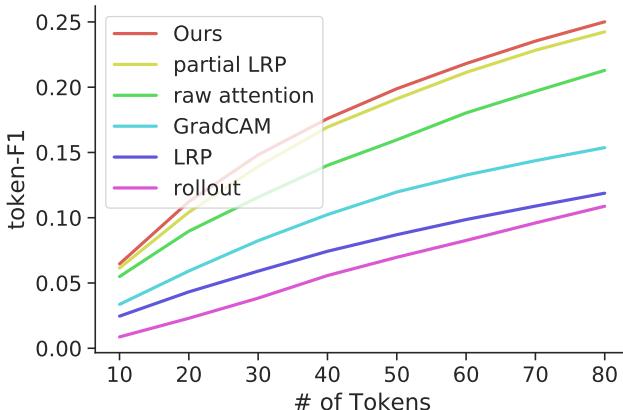


Figure 3: token-F1 scores on the Movies Review reasoning task.

| | Segmentation | | | Perturbations | |
|--|--------------|--------------|--------------|---------------|--------------|
| | Acc. | mAP | mIoU | Pos. | Neg. |
| Ours w/o $\nabla \mathbf{A}^{(b)}$ | 77.66 | 85.66 | 59.88 | 18.23 | 52.88 |
| $\nabla \mathbf{A}^{(1)} \mathbf{R}^{(n_1)}$ | 78.32 | 85.25 | 59.93 | 18.01 | 52.43 |
| $\nabla \mathbf{A}^{(B-1)} \mathbf{R}^{(n_{B-1})}$ | 60.30 | 73.63 | 39.06 | 27.33 | 37.42 |
| Ours | 79.70 | 86.06 | 61.95 | 17.03 | 54.16 |

Table 3: Performance for different ablation variants of our method.

dicted class perturbation experiments. (i) Ours w/o $\nabla \mathbf{A}^{(b)}$, simply modifying Eq. 16, (ii) $\nabla \mathbf{A}^{(1)} \mathbf{R}^{(n_1)}$, visualizing

block 1 using our relevance and gradients component, and (iii) $\nabla \mathbf{A}^{(B-1)} \mathbf{R}^{(n_{B-1})}$, similar to (ii), only for the second block.

As can be seen in Tab. 3 removing the attention component from Eq. 16, while keeping the relevance and only considering the last attention layer, leads to a moderate drop in performance. Out of the two single block visualization, the combined attention and relevancy at the $b = 1$ block, which is the closest to the output, is more informative than the block closest to the input. This is the same block that is being used for the raw-attention and the GradCAM methods. The ablation that considers only this block outperforms these methods, indicating that the advantage of our method stems mostly from the combination of relevancy as we compute it and attention value.

5. Conclusions

The self-attention mechanism of Transformers links each of the tokens to the [CLS] token. The strength of this attention link can be intuitively considered as an indicator to the contribution of each token. While this is intuitive, given the term “attention”, the attention values reflect only one aspect of the Transformer network or even of the self-attention head. As we demonstrate, both when using a fine-tuned BERT model for NLP and with the ViT model, attentions lead to fragmented and non-competitive explanations.

Despite of this shortcoming and the importance of Transformer models, the literature with regards to interpretability of Transformers is sparse. In comparison to CNNs, there are multiple factors that prevent models developed for other forms of neural networks (not including the slower black-box methods) to be applied. These include the use of non-

positive activation functions, the frequent use of skip connections, and the challenge of modeling the multiplication that is used in self-attention.

Our method provides specific solutions to each of these challenges and obtained state of the art results when compared to the methods of the Transformer literature, the LRP method, and the GradCam method, which can be applied directly to Transformers. Our code is attached as supplementary and would be released as open-source.

Acknowledgment

This project has received funding from the European Research Council (ERC) under the European Unions Horizon 2020 research and innovation programme (grant ERC CoG 725974). The contribution of the first author is part of a Master thesis research conducted at Tel Aviv University.

References

- [1] Samira Abnar and Willem Zuidema. Quantifying attention flow in transformers. *arXiv preprint arXiv:2005.00928*, 2020. [1](#), [3](#), [5](#), [7](#), [8](#)
- [2] Sebastian Bach, Alexander Binder, Grégoire Montavon, Frederick Klauschen, Klaus-Robert Müller, and Wojciech Samek. On pixel-wise explanations for non-linear classifier decisions by layer-wise relevance propagation. *PloS one*, 10(7):e0130140, 2015. [2](#), [3](#)
- [3] Alexander Binder, Grégoire Montavon, Sebastian Lapuschkin, Klaus-Robert Müller, and Wojciech Samek. Layer-wise relevance propagation for neural networks with local renormalization layers. In *International Conference on Artificial Neural Networks*, pages 63–71. Springer, 2016. [1](#), [7](#), [8](#)
- [4] Nicolas Carion, Francisco Massa, Gabriel Synnaeve, Nicolas Usunier, Alexander Kirillov, and Sergey Zagoruyko. End-to-end object detection with transformers. *arXiv preprint arXiv:2005.12872*, 2020. [1](#)
- [5] Jianbo Chen, Le Song, Martin J. Wainwright, and Michael I. Jordan. L-shapley and c-shapley: Efficient model interpretation for structured data. In *International Conference on Learning Representations*, 2019. [2](#)
- [6] Mark Chen, Alec Radford, Rewon Child, Jeff Wu, Heewoo Jun, Prafulla Dhariwal, David Luan, and Ilya Sutskever. Generative pretraining from pixels. In *Proceedings of the 37th International Conference on Machine Learning*, volume 1, 2020. [1](#)
- [7] Jianpeng Cheng, Li Dong, and Mirella Lapata. Long short-term memory-networks for machine reading. In *Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing*, pages 551–561, 2016. [1](#)
- [8] Piotr Dabkowski and Yarin Gal. Real time image saliency for black box classifiers. In *Advances in Neural Information Processing Systems*, pages 6970–6979, 2017. [2](#)
- [9] Jacob Devlin, Ming-Wei Chang, Kenton Lee, and Kristina Toutanova. Bert: Pre-training of deep bidirectional transformers for language understanding. *arXiv preprint arXiv:1810.04805*, 2018. [1](#), [3](#), [5](#)
- [10] Jay DeYoung, Sarthak Jain, Nazneen Fatema Rajani, Eric Lehman, Caiming Xiong, Richard Socher, and Byron C Wallace. Eraser: A benchmark to evaluate rationalized nlp models. *arXiv preprint arXiv:1911.03429*, 2019. [2](#), [6](#)
- [11] Alexey Dosovitskiy, Lucas Beyer, Alexander Kolesnikov, Dirk Weissenborn, Xiaohua Zhai, Thomas Unterthiner, Mostafa Dehghani, Matthias Minderer, Georg Heigold, Sylvain Gelly, et al. An image is worth 16x16 words: Transformers for image recognition at scale. *arXiv preprint arXiv:2010.11929*, 2020. [1](#), [3](#), [5](#)
- [12] Dumitru Erhan, Yoshua Bengio, Aaron Courville, and Pascal Vincent. Visualizing higher-layer features of a deep network. *University of Montreal*, 1341(3):1, 2009. [2](#)
- [13] Ruth Fong, Mandala Patrick, and Andrea Vedaldi. Understanding deep networks via extremal perturbations and smooth masks. In *Proceedings of the IEEE International Conference on Computer Vision*, pages 2950–2958, 2019. [2](#)
- [14] Ruth C Fong and Andrea Vedaldi. Interpretable explanations of black boxes by meaningful perturbation. In *Proceedings of the IEEE International Conference on Computer Vision*, pages 3429–3437, 2017. [2](#)
- [15] Jindong Gu, Yinchong Yang, and Volker Tresp. Understanding individual decisions of cnns via contrastive backpropagation. In *Asian Conference on Computer Vision*, pages 119–134. Springer, 2018. [2](#)
- [16] Matthieu Guillaumin, Daniel Küttel, and Vittorio Ferrari. Imagenet auto-annotation with segmentation propagation. *International Journal of Computer Vision*, 110(3):328–348, 2014. [6](#), [8](#)
- [17] Dan Hendrycks and Kevin Gimpel. Gaussian error linear units (gelus). *arXiv preprint arXiv:1606.08415*, 2016. [3](#)
- [18] Sara Hooker, Dumitru Erhan, Pieter-Jan Kindermans, and Been Kim. A benchmark for interpretability methods in deep neural networks. In *Advances in Neural Information Processing Systems*, pages 9737–9748, 2019. [6](#)
- [19] Brian Kenji Iwana, Ryohei Kuroki, and Seiichi Uchida. Explaining convolutional neural networks using softmax gradient layer-wise relevance propagation. *arXiv preprint arXiv:1908.04351*, 2019. [2](#)
- [20] Kunpeng Li, Ziyan Wu, Kuan-Chuan Peng, Jan Ernst, and Yun Fu. Tell me where to look: Guided attention inference network. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, pages 9215–9223, 2018. [2](#)
- [21] Yinhan Liu, Myle Ott, Naman Goyal, Jingfei Du, Mandar Joshi, Danqi Chen, Omer Levy, Mike Lewis, Luke Zettlemoyer, and Veselin Stoyanov. RoBERTa: A robustly optimized bert pretraining approach. *arXiv preprint arXiv:1907.11692*, 2019. [1](#)
- [22] Jiasen Lu, Dhruv Batra, Devi Parikh, and Stefan Lee. Vilbert: Pretraining task-agnostic visiolinguistic representations for vision-and-language tasks. In *Advances in Neural Information Processing Systems*, pages 13–23, 2019. [1](#)
- [23] Scott M Lundberg and Su-In Lee. A unified approach to interpreting model predictions. In *Advances in Neural Information Processing Systems*, pages 4765–4774, 2017. [2](#)

- [24] Aravindh Mahendran and Andrea Vedaldi. Visualizing deep convolutional neural networks using natural pre-images. *International Journal of Computer Vision*, 120(3):233–255, 2016. 2
- [25] Brent Mittelstadt, Chris Russell, and Sandra Wachter. Explaining explanations in ai. In *Proceedings of the conference on fairness, accountability, and transparency*, pages 279–288, 2019. 2
- [26] Grégoire Montavon, Sebastian Lapuschkin, Alexander Binder, Wojciech Samek, and Klaus-Robert Müller. Explaining nonlinear classification decisions with deep taylor decomposition. *Pattern Recognition*, 65:211–222, 2017. 1, 2, 3
- [27] Woo-Jeoung Nam, Shir Gur, Jaesik Choi, Lior Wolf, and Seong-Whan Lee. Relative attributing propagation: Interpreting the comparative contributions of individual units in deep neural networks. *arXiv preprint arXiv:1904.00605*, 2019. 2
- [28] Ankur Parikh, Oscar Täckström, Dipanjan Das, and Jakob Uszkoreit. A decomposable attention model for natural language inference. In *Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing*, pages 2249–2255, 2016. 1
- [29] Alec Radford, Jeff Wu, Rewon Child, David Luan, Dario Amodei, and Ilya Sutskever. Language models are unsupervised multitask learners. 2019. 1
- [30] Olga Russakovsky, Jia Deng, Hao Su, Jonathan Krause, Sanjeev Satheesh, Sean Ma, Zhiheng Huang, Andrej Karpathy, Aditya Khosla, Michael Bernstein, et al. Imagenet large scale visual recognition challenge. *International journal of computer vision*, 115(3):211–252, 2015. 6, 8
- [31] Ramprasaath R Selvaraju, Michael Cogswell, Abhishek Das, Ramakrishna Vedantam, Devi Parikh, and Dhruv Batra. Grad-cam: Visual explanations from deep networks via gradient-based localization. In *Proceedings of the IEEE international conference on computer vision*, pages 618–626, 2017. 2, 6, 7, 8
- [32] Avanti Shrikumar, Peyton Greenside, and Anshul Kundaje. Learning important features through propagating activation differences. In *Proceedings of the 34th International Conference on Machine Learning-Volume 70*, pages 3145–3153. JMLR.org, 2017. 2
- [33] Karen Simonyan, Andrea Vedaldi, and Andrew Zisserman. Deep inside convolutional networks: Visualising image classification models and saliency maps. *arXiv preprint arXiv:1312.6034*, 2013. 2
- [34] Daniel Smilkov, Nikhil Thorat, Been Kim, Fernanda Viégas, and Martin Wattenberg. Smoothgrad: removing noise by adding noise. *arXiv preprint arXiv:1706.03825*, 2017. 2
- [35] Suraj Srinivas and François Fleuret. Full-gradient representation for neural network visualization. In *Advances in Neural Information Processing Systems*, pages 4126–4135, 2019. 2
- [36] Weijie Su, Xizhou Zhu, Yue Cao, Bin Li, Lewei Lu, Furu Wei, and Jifeng Dai. Vl-bert: Pre-training of generic visual-linguistic representations. *arXiv preprint arXiv:1908.08530*, 2019. 1
- [37] Mukund Sundararajan, Ankur Taly, and Qiqi Yan. Axiomatic attribution for deep networks. In *Proceedings of the 34th International Conference on Machine Learning-Volume 70*, pages 3319–3328. JMLR.org, 2017. 2
- [38] Hao Tan and Mohit Bansal. Lxmert: Learning cross-modality encoder representations from transformers. *arXiv preprint arXiv:1908.07490*, 2019. 1
- [39] Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N Gomez, Łukasz Kaiser, and Illia Polosukhin. Attention is all you need. In *Advances in neural information processing systems*, pages 5998–6008, 2017. 1, 3
- [40] Elena Voita, David Talbot, Fedor Moiseev, Rico Sennrich, and Ivan Titov. Analyzing multi-head self-attention: Specialized heads do the heavy lifting, the rest can be pruned. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, pages 5797–5808, 2019. 1, 3, 5, 7, 8
- [41] Kelvin Xu, Jimmy Ba, Ryan Kiros, Kyunghyun Cho, Aaron Courville, Ruslan Salakhudinov, Rich Zemel, and Yoshua Bengio. Show, attend and tell: Neural image caption generation with visual attention. In *International conference on machine learning*, pages 2048–2057, 2015. 1
- [42] Omar Zaidan and Jason Eisner. Modeling annotators: A generative approach to learning from annotator rationales. In *Proceedings of the 2008 conference on Empirical methods in natural language processing*, pages 31–40, 2008. 6
- [43] Matthew D Zeiler and Rob Fergus. Visualizing and understanding convolutional networks. In *European conference on computer vision*, pages 818–833. Springer, 2014. 2
- [44] Jianming Zhang, Sarah Adel Bargal, Zhe Lin, Jonathan Brandt, Xiaohui Shen, and Stan Sclaroff. Top-down neural attention by excitation backprop. *International Journal of Computer Vision*, 126(10):1084–1102, 2018. 2
- [45] Bolei Zhou, David Bau, Aude Oliva, and Antonio Torralba. Interpreting deep visual representations via network dissection. *IEEE transactions on pattern analysis and machine intelligence*, 2018. 2
- [46] Bolei Zhou, Aditya Khosla, Agata Lapedriza, Aude Oliva, and Antonio Torralba. Learning deep features for discriminative localization. In *Proceedings of the IEEE conference on computer vision and pattern recognition*, pages 2921–2929, 2016. 2

A. Code

Notice that the code contains a README.md file with instructions on how to reproduce all the results presented in the paper. In addition, the code contains a jupyter notebook that generates visualizations of both class-specific examples presented in the paper.

Examples

Cat-Dog

```
In [9]: image = Image.open('samples/catdog.png')
dog_cat_image = transform(image)

fig, axs = plt.subplots(1, 3)
axs[0].imshow(image);
axs[0].axis('off');

output = model(dog_cat_image.unsqueeze(0).cuda())
print_top_classes(output)

# cat - the predicted class
cat = generate_visualization(dog_cat_image)

# dog
# generate visualization for class 243: 'bull mastiff'
dog = generate_visualization(dog_cat_image, class_index=243)

axs[1].imshow(cat);
axs[1].axis('off');
axs[2].imshow(dog);
axs[2].axis('off');

Top 5 classes:
  282 : tiger cat           value = 10.559  prob = 68.6%
  281 : tabby, tabby cat    value = 9.059   prob = 15.3%
  285 : Egyptian cat       value = 8.414   prob = 8.0%
  243 : bull mastiff       value = 7.425   prob = 3.0%
  811 : space heater        value = 5.152   prob = 0.3%
```

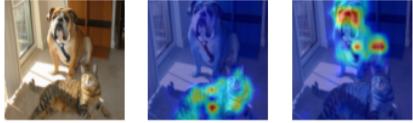


Figure 1: Cat and dog class specific visualizations from the jupyter notebook.

Tusker-Zebra

```
In [16]: image = Image.open('samples/el2.png')
tusker_zebra_image = transform(image)

fig, axs = plt.subplots(1, 3)
axs[0].imshow(image);
axs[0].axis('off');

output = model(tusker_zebra_image.unsqueeze(0).cuda())
print_top_classes(output)

# tusker - the predicted class
tusker = generate_visualization(tusker_zebra_image)

# zebra
# generate visualization for class 340: 'zebra'
zebra = generate_visualization(tusker_zebra_image, class_index=340)

axs[1].imshow(tusker);
axs[1].axis('off');
axs[2].imshow(zebra);
axs[2].axis('off');

Top 5 classes:
    101 : tusker                         value = 11.216  prob = 37.9%
    340 : zebra                          value = 10.973  prob = 29.7%
    386 : African elephant, Loxodonta africana  value = 10.747  prob = 23.7%
    385 : Indian elephant, Elephas maximus   value = 9.547   prob = 7.2%
    343 : warthog                         value = 5.566   prob = 0.1%
```



Figure 2: Tusker and zebra class specific visualizations from the jupyter notebook.

B. Details of the various Baselines

GradCAM As mentioned in Sec. 4, we consider the last attention layer (closest to the output) - namely $\mathbf{A}^{(1)}$. This results in a feature-map of size $h \times s \times s$. Following the process described in Sec. 3.4, we take only the [CLS] token's row (without the [CLS] token's column), and reshape to the patches grid size $h_p \times w_p$. This results in a feature-map similar to the 2D feature-map used for GradCAM, where the number of channels, in this case, is h , and the height and width are h_p and w_p . The reason we use the last attention layer is because of the sparse gradients of the BERT's output, as described in Sec. 4.

raw-attention The raw-attention methods visualize the last attention layer (closest to the output) - namely $\mathbf{A}^{(1)}$. It follows the process described in Sec. 3.4 to extract the final output.

LRP In this method we propagate relevance up to the input image, following the propagation rules of LRP (not our modified rules and normalizations).

partial-LRP Following [40], we visualize an intermediate relevance map, more specifically, we visualize the last attention-map's relevance, namely $R^{(n_1)}$, following LRP propagation rules.

partial-LRP Following [40], we visualize an intermediate relevance map, more specifically, we visualize the last attention-map's relevance, namely $R^{(n_1)}$, following LRP propagation rules.

rollout We follow Eq. 18.

C. Proofs for Lemmas

Given two tensors u and v , we compute the relevance propagation of these binary operators (i.e., operators that process two operands) as follows:

$$\begin{aligned} R_j^{u^{(n)}} &= \mathcal{G}(u, v, R^{(n-1)}) \\ R_k^{v^{(n)}} &= \mathcal{G}(v, u, R^{(n-1)}) \end{aligned} \quad (1)$$

where $R_j^{u^{(n)}}$ and $R_k^{v^{(n)}}$ are the relevance for u and v respectively.

The following lemma shows that for the case of addition, the conservation rule is obtained, i.e.,

$$\sum_j R_j^{u^{(n)}} + \sum_k R_k^{v^{(n)}} = \sum_i R_i^{(n-1)}. \quad (2)$$

However, this is not the case for matrix multiplication.

Lemma 3. *Given two tensors u and v , consider the relevances that are computed according to Eq. 1. Then, (i) if layer $L^{(n)}$ adds the two tensors, i.e., $L^{(n)}(u, v) = u + v$ then the conservation rule of Eq. 2 is maintained. (ii) if the layer performs matrix multiplication $L^{(n)}(u, v) = uv$, then Eq. 2 does not hold in general.*

Proof. For part (i), we note that the number of elements in u equals to the number of elements in v , therefore $k = j$, and we can write Eq. 2 following the definition of \mathcal{G} :

$$\begin{aligned} &\sum_j \sum_i u_j \frac{\partial(u+v)}{\partial u_j} \frac{R_i^{(n-1)}}{\sum_{j'} u_{j'} + v_{j'}} + \sum_j \sum_i v_j \frac{\partial(u+v)}{\partial v_j} \frac{R_i^{(n-1)}}{\sum_{j'} u_{j'} + v_{j'}} \\ &= \sum_j \frac{u_j}{\sum_{j'} u_{j'} + v_{j'}} \sum_i R_i^{(n-1)} + \sum_j \frac{v_j}{\sum_{j'} u_{j'} + v_{j'}} \sum_i R_i^{(n-1)} \\ &= \frac{\sum_j u_j + v_j}{\sum_{j'} u_{j'} + v_{j'}} \sum_i R_i^{(n-1)} = \sum_i R_i^{(n-1)} \end{aligned} \quad (3)$$

we can also conclude that for that case, $\sum_j R_j^{u^{(n)}} \neq \sum_j R_j^{v^{(n)}}$.

For part (ii), in the case of matrix multiplication between u and v , we will show that $\sum_j R_j^{u^{(n)}} = \sum_k R_k^{v^{(n)}}$, which invalidates the conservation rule:

$$\begin{aligned} &\sum_j \sum_i u_j \frac{\partial uv}{\partial u_j} \frac{R_i^{(n-1)}}{\sum_{j'} u_{j'} v_{j'i}} + \sum_k \sum_i v_k \frac{\partial uv}{\partial v_k} \frac{R_i^{(n-1)}}{\sum_{k'} u_{ik'} v_{k'}} \\ &= \sum_j \sum_i \frac{u_j v_{ji}}{\sum_{j'} u_{j'} v_{j'i}} R_i^{(n-1)} + \sum_k \sum_i \frac{u_{ik} v_k}{\sum_{k'} u_{ik'} v_{k'}} R_i^{(n-1)} \\ &= \sum_i \frac{\sum_j u_j v_{ji}}{\sum_{j'} u_{j'} v_{j'i}} R_i^{(n-1)} + \sum_i \frac{\sum_k u_{ik} v_k}{\sum_{k'} u_{ik'} v_{k'}} R_i^{(n-1)} \\ &= \sum_i R_i^{(n-1)} + \sum_i R_i^{(n-1)} = 2 \sum_i R_i^{(n-1)} \neq \sum_i R_i^{(n-1)} \end{aligned} \quad (4)$$

because u and v are both matrices, we denote by the subscript $u_j v_{ji}$ (for example) the multiplication of element j in u with element i in v iff u_j and v_i are connected in the original multiplication. \square

To address the lack of conservation in the attention mechanism, which employs multiplication, and the numerical issues

of the skip connections, our method applies a normalization to $R_j^{u(n)}$ and $R_k^{v(n)}$:

$$\begin{aligned}\bar{R}_j^{u(n)} &= R_j^{u(n)} \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u(n)}} \\ \bar{R}_k^{v(n)} &= R_k^{v(n)} \frac{\sum_k |R_k^{v(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_k R_k^{v(n)}}\end{aligned}\quad (5)$$

Lemma 4. *The normalized relevance scores $\bar{R}_j^{u(n)}$ and $\bar{R}_k^{v(n)}$ have the following properties: (i) it maintains the conservation rule $\sum_j \bar{R}_j^{u(n)} + \sum_k \bar{R}_k^{v(n)} = \sum_i R_i^{(n-1)}$, (ii) it bounds the relevance sum of each tensor*

$$0 \leq \sum_j \bar{R}_j^{u(n)}, \sum_k \bar{R}_k^{v(n)} \leq \sum_i R_i^{(n-1)} \quad (6)$$

Proof. For part (i), it follows:

$$\sum_j \bar{R}_j^{u(n)} + \sum_k \bar{R}_k^{v(n)} \quad (7)$$

$$\begin{aligned}&= \sum_j R_j^{u(n)} \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u(n)}} \\ &\quad + \sum_k R_k^{v(n)} \frac{\sum_k |R_k^{v(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_k R_k^{v(n)}}\end{aligned}\quad (8)$$

$$= \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \sum_i R_i^{(n-1)} + \frac{\sum_k |R_k^{v(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \sum_i R_i^{(n-1)} \quad (9)$$

$$= \frac{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \sum_i R_i^{(n-1)} = \sum_i R_i^{(n-1)} \quad (10)$$

For part (ii) it is trivial to see that we weigh each tensor according to its relative absolute contribution:

$$\sum_j \bar{R}_j^{u(n)} = \sum_j R_j^{u(n)} \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u(n)}} \quad (11)$$

$$= \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \cdot \sum_i R_i^{(n-1)} \quad (12)$$

we see that:

$$0 \leq \frac{\sum_j |R_j^{u(n)}|}{\sum_j |R_j^{u(n)}| + \sum_k |R_k^{v(n)}|} \leq 1 \quad (13)$$

therefore:

$$0 \leq \sum_j \bar{R}_j^{u(n)}, \sum_k \bar{R}_k^{v(n)} \leq \sum_i R_i^{(n-1)} \quad (14)$$

□

D. Visualizations - Multiple-class Images

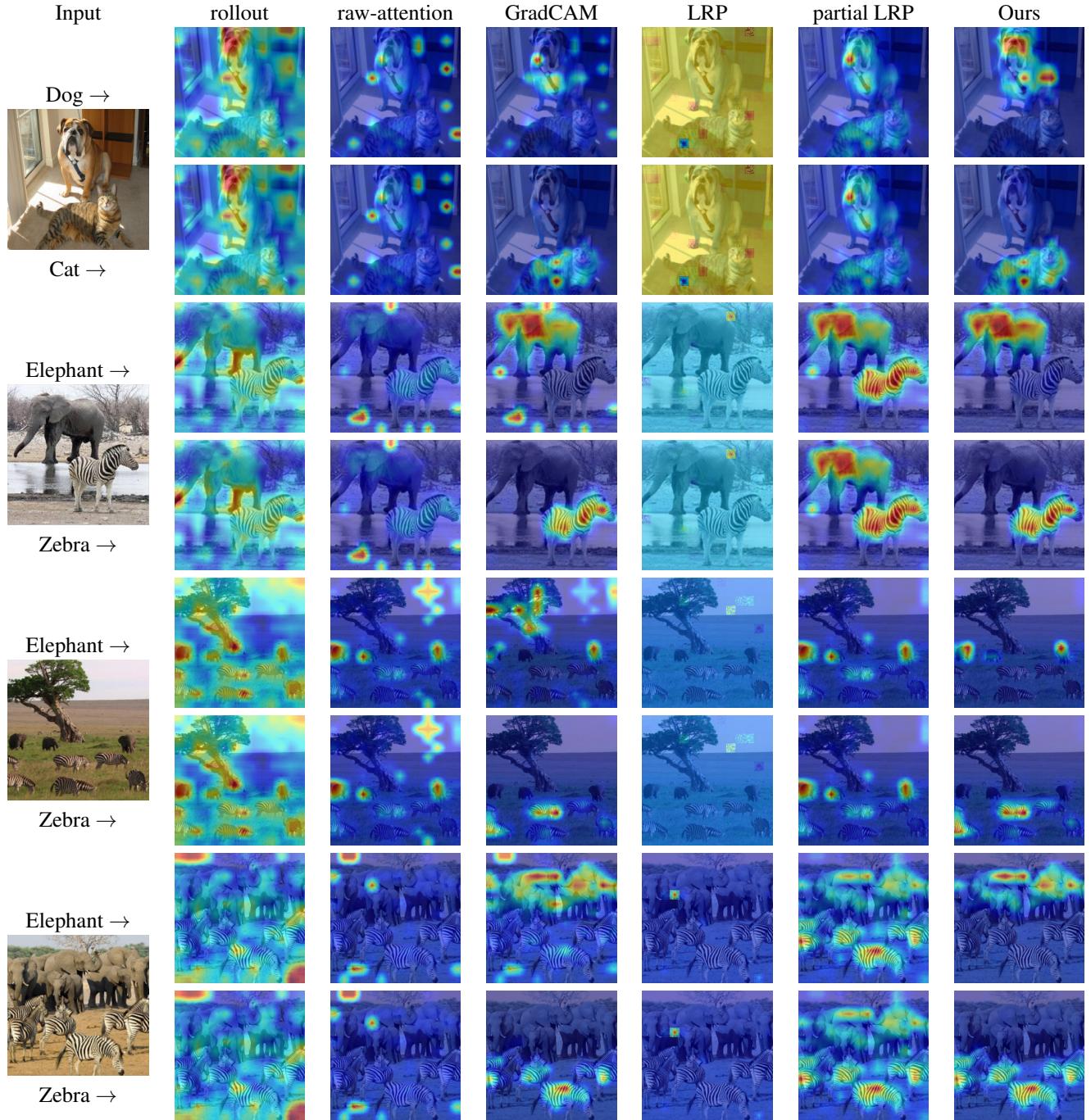


Figure 3: Multiple-class visualization. For each input image we visualize two different class. As can be seen, only our method and GradCAM produce class specific visualizations, where our method has less artifacts, and capture the objects more completely.

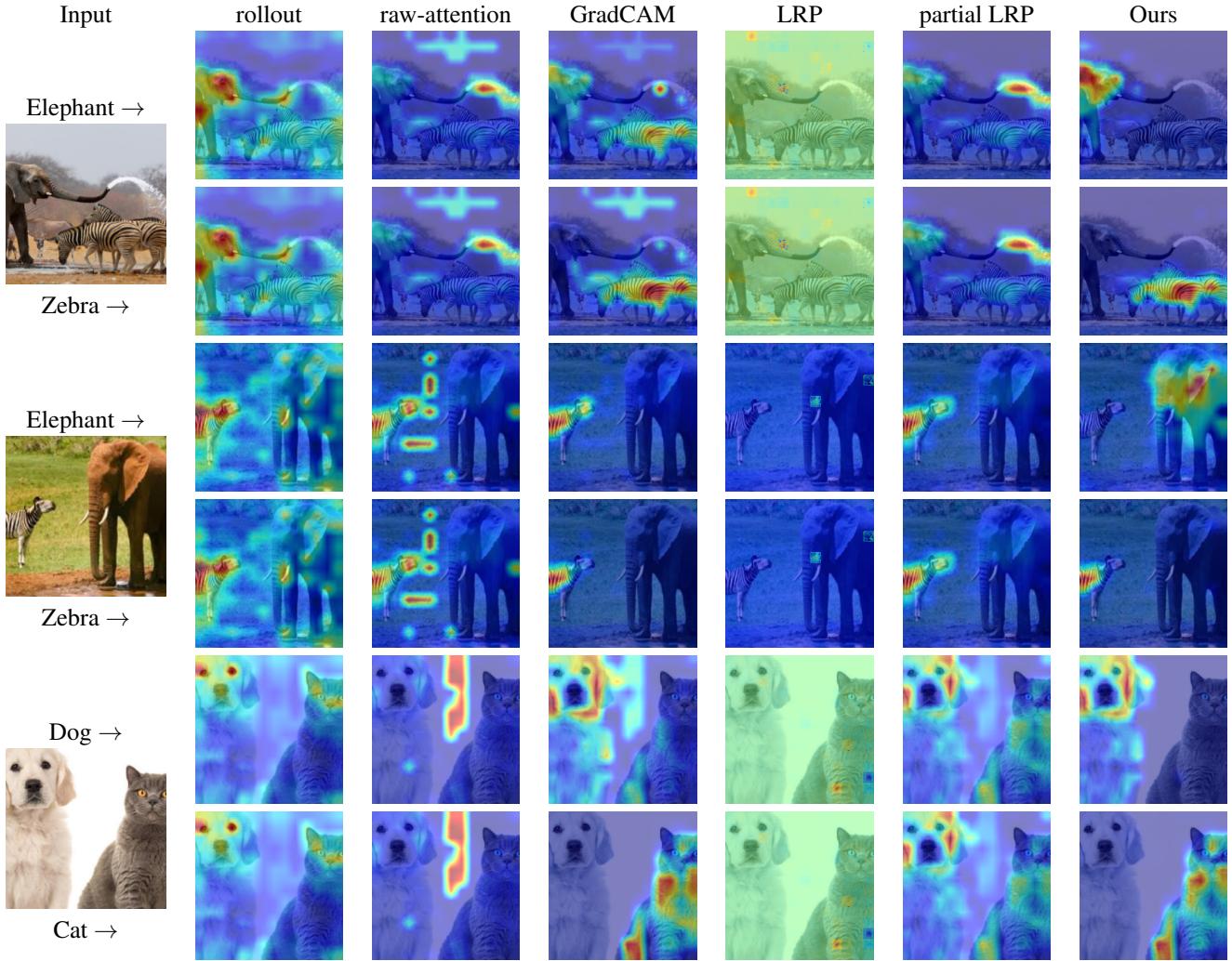


Figure 4: Multiple-class visualization. For each input image we visualize two different class. As can be seen, only our method and GradCAM produce class specific visualizations, where our method has less artifacts, and capture the objects more completely.

E. Visualizations - Single-class Images

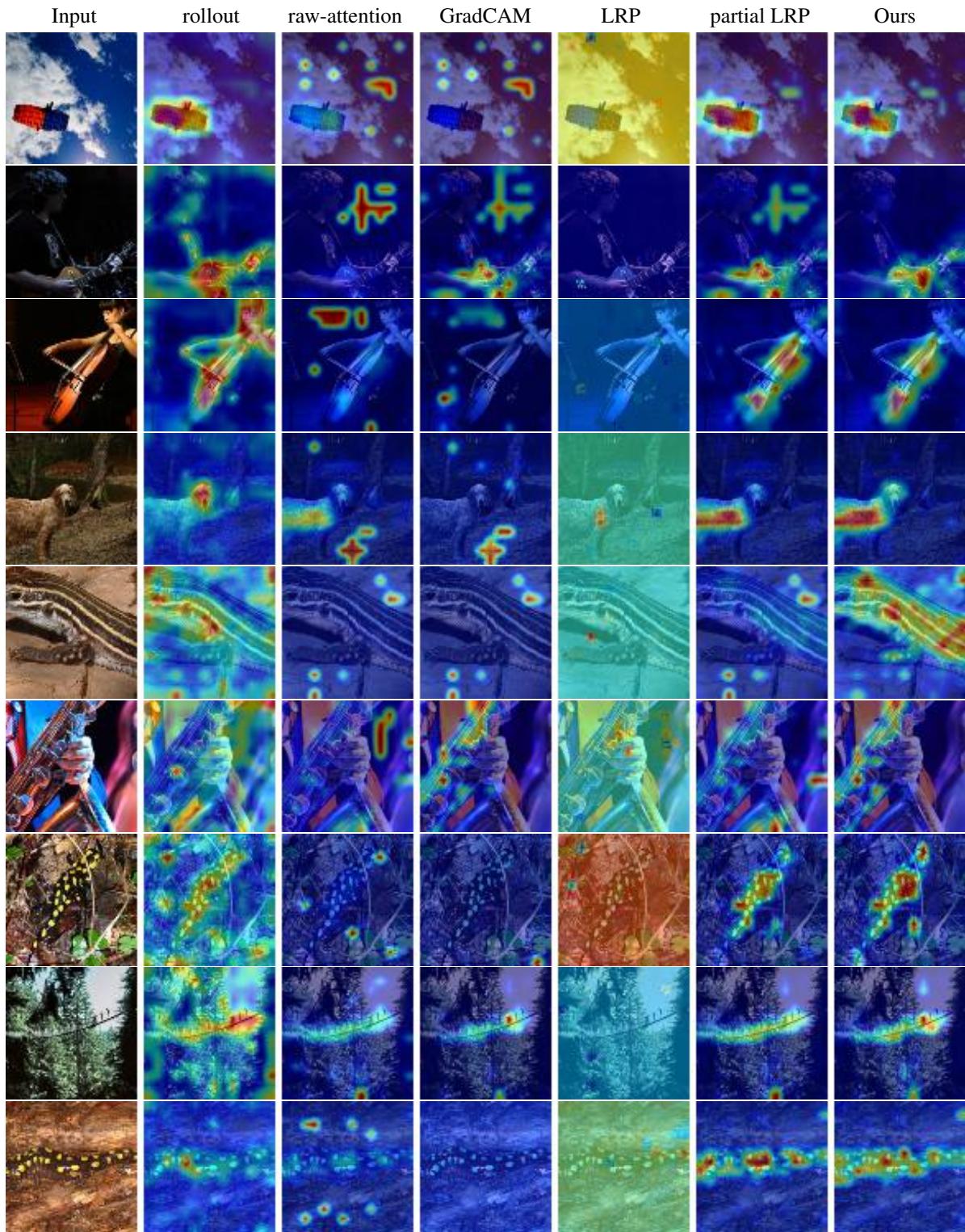


Figure 5: Sample images from ImageNet val-set.

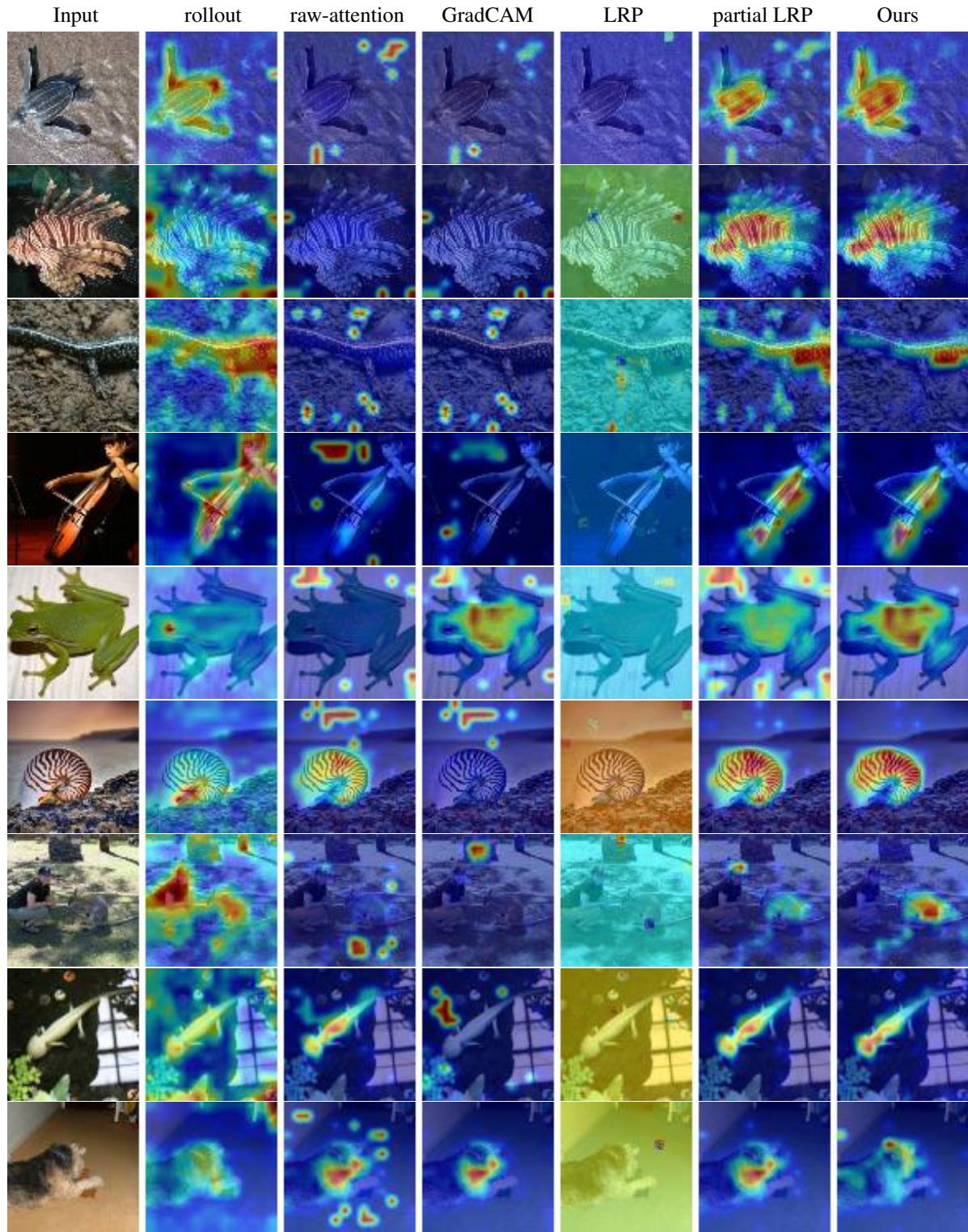


Figure 6: Sample images from ImageNet val-set.

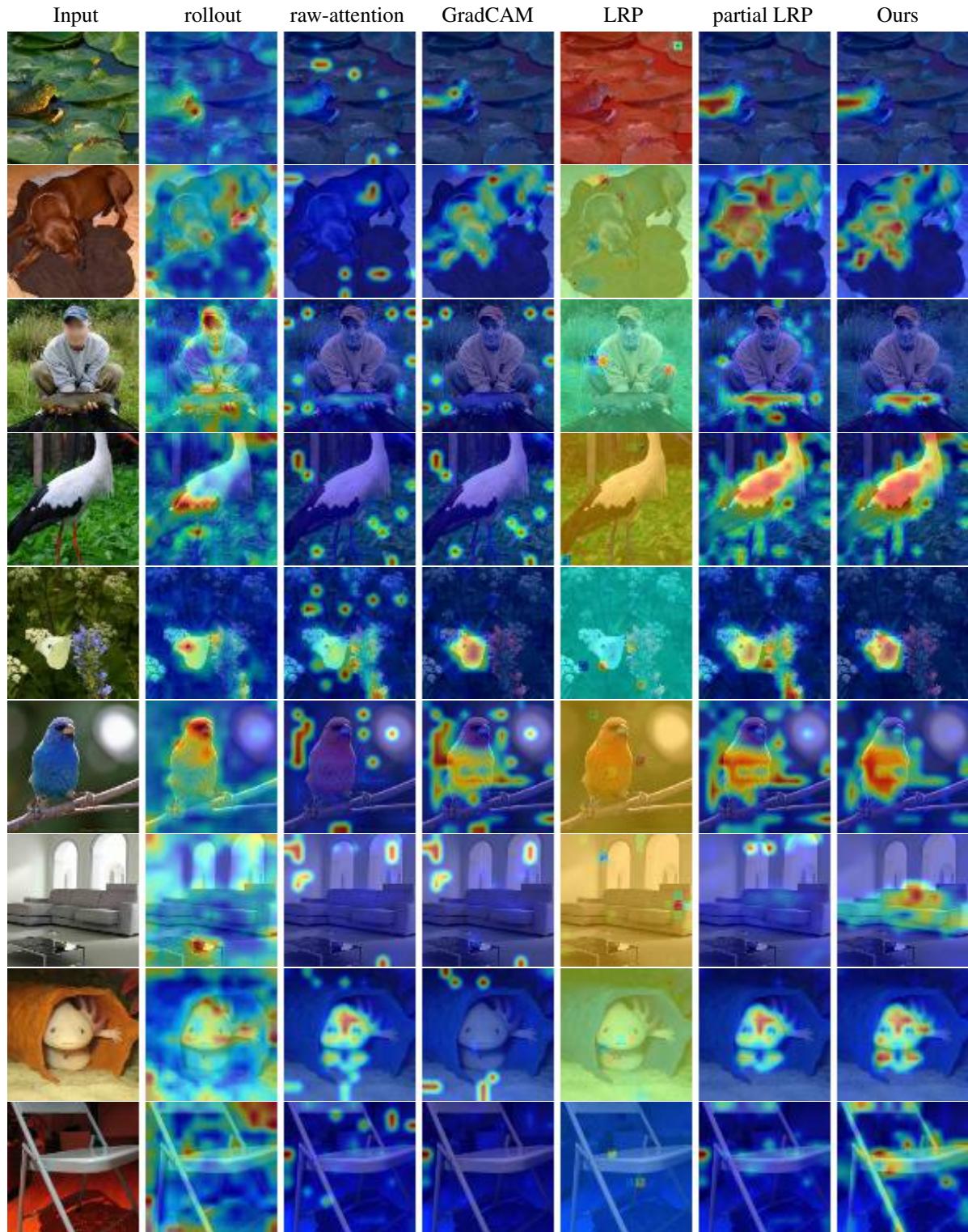


Figure 7: Sample images from ImageNet val-set.

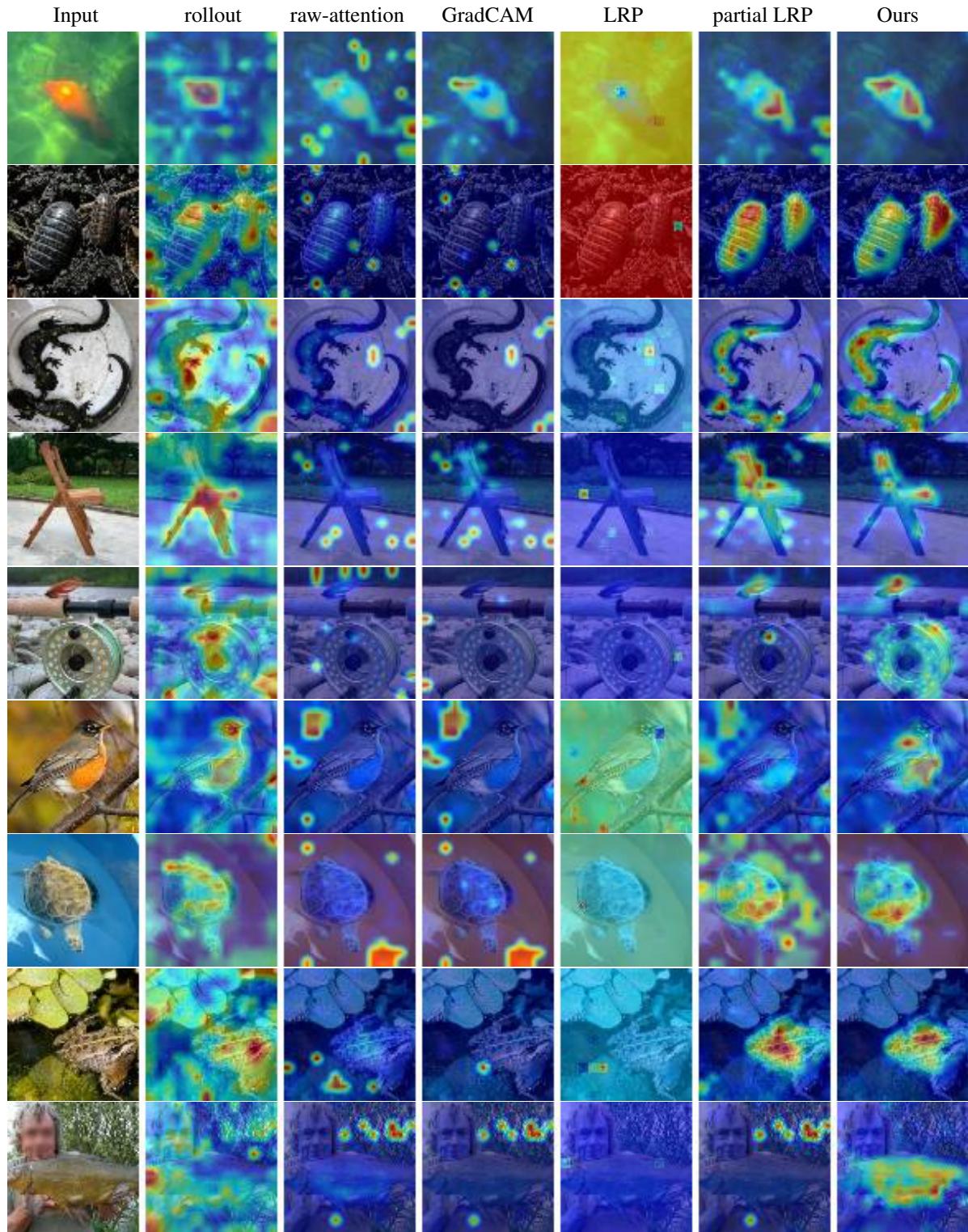


Figure 8: Sample images from ImageNet val-set.

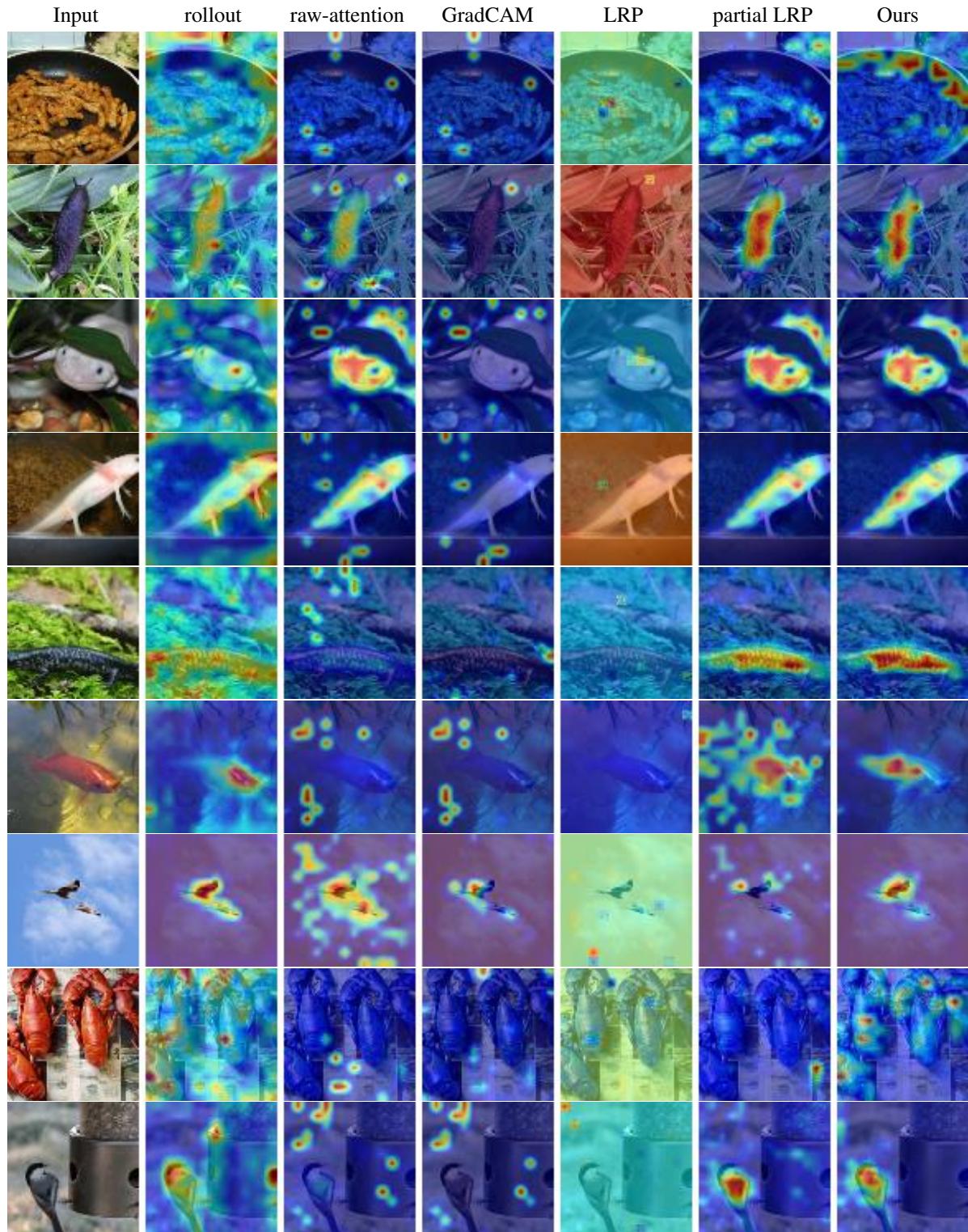


Figure 9: Sample images from ImageNet val-set.

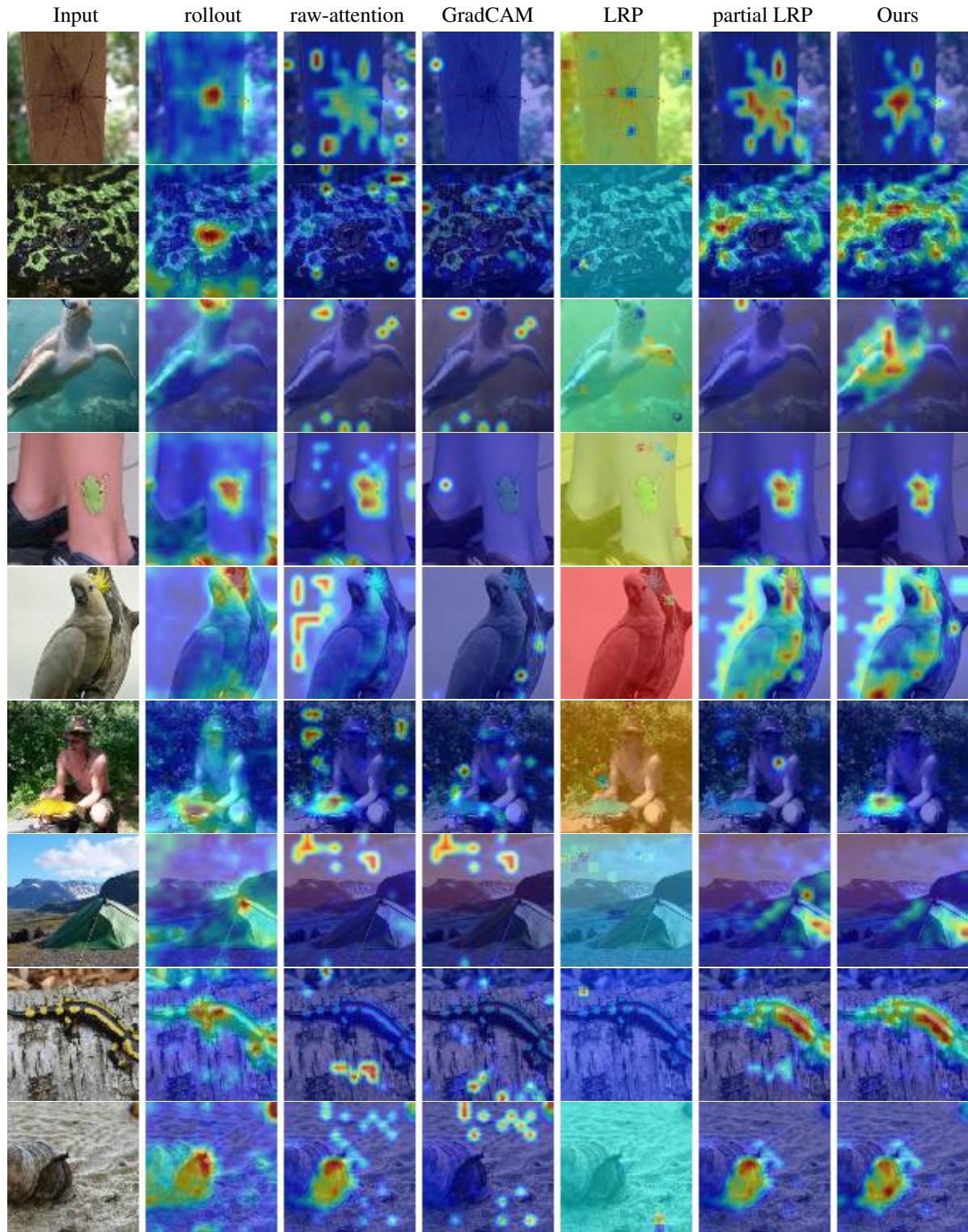


Figure 10: Sample images from ImageNet val-set.

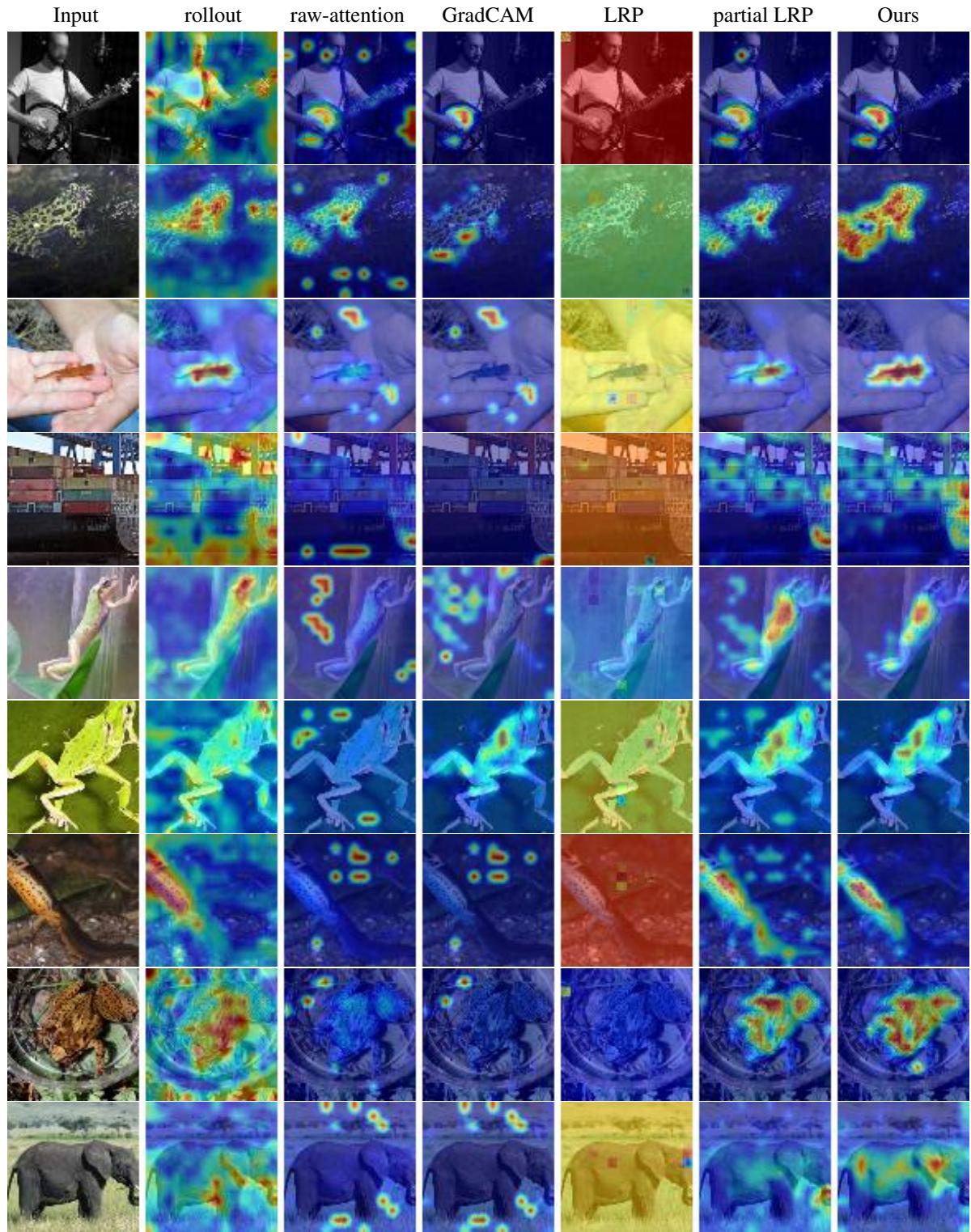


Figure 11: Sample images from ImageNet val-set.

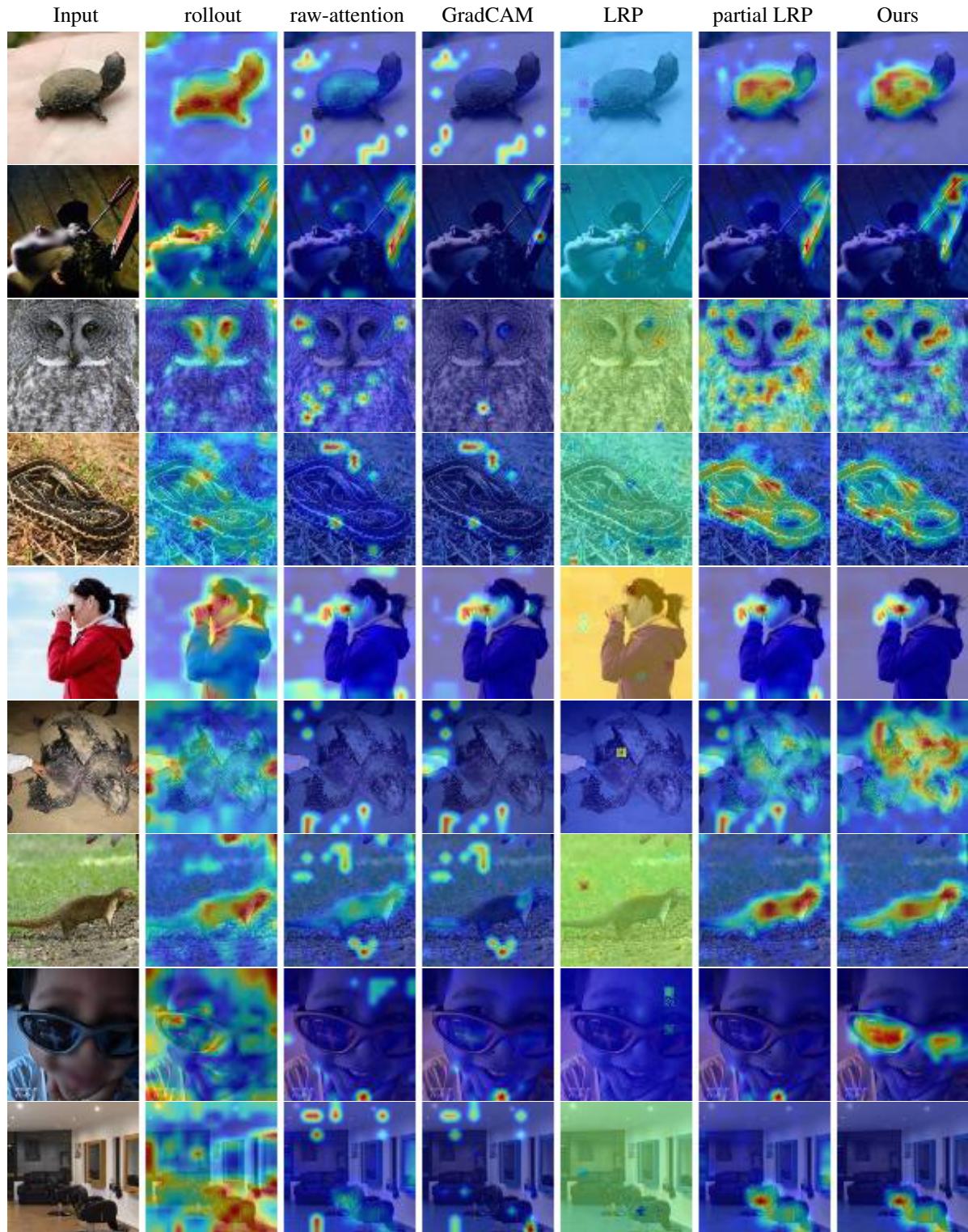


Figure 12: Sample images from ImageNet val-set.

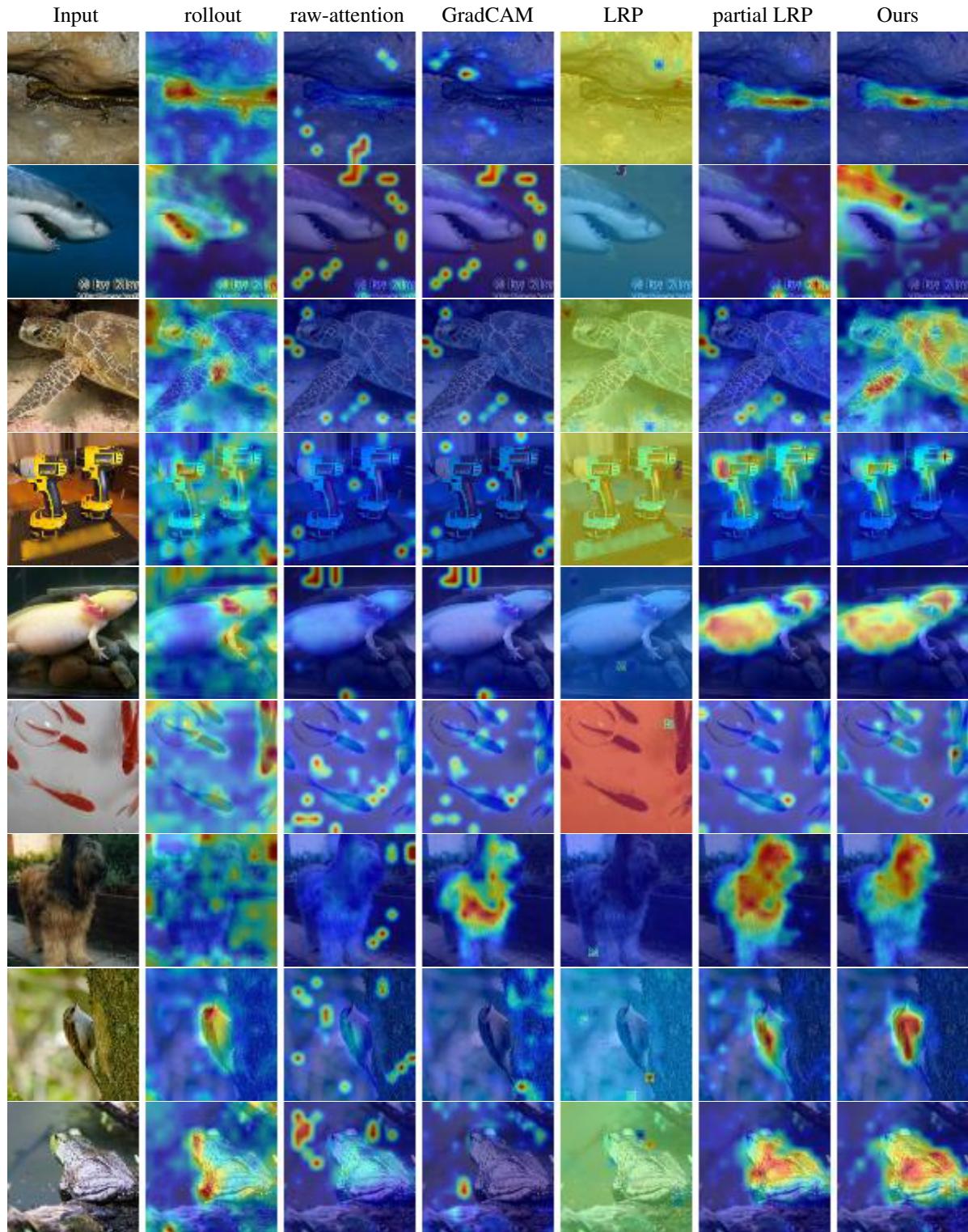


Figure 13: Sample images from ImageNet val-set.

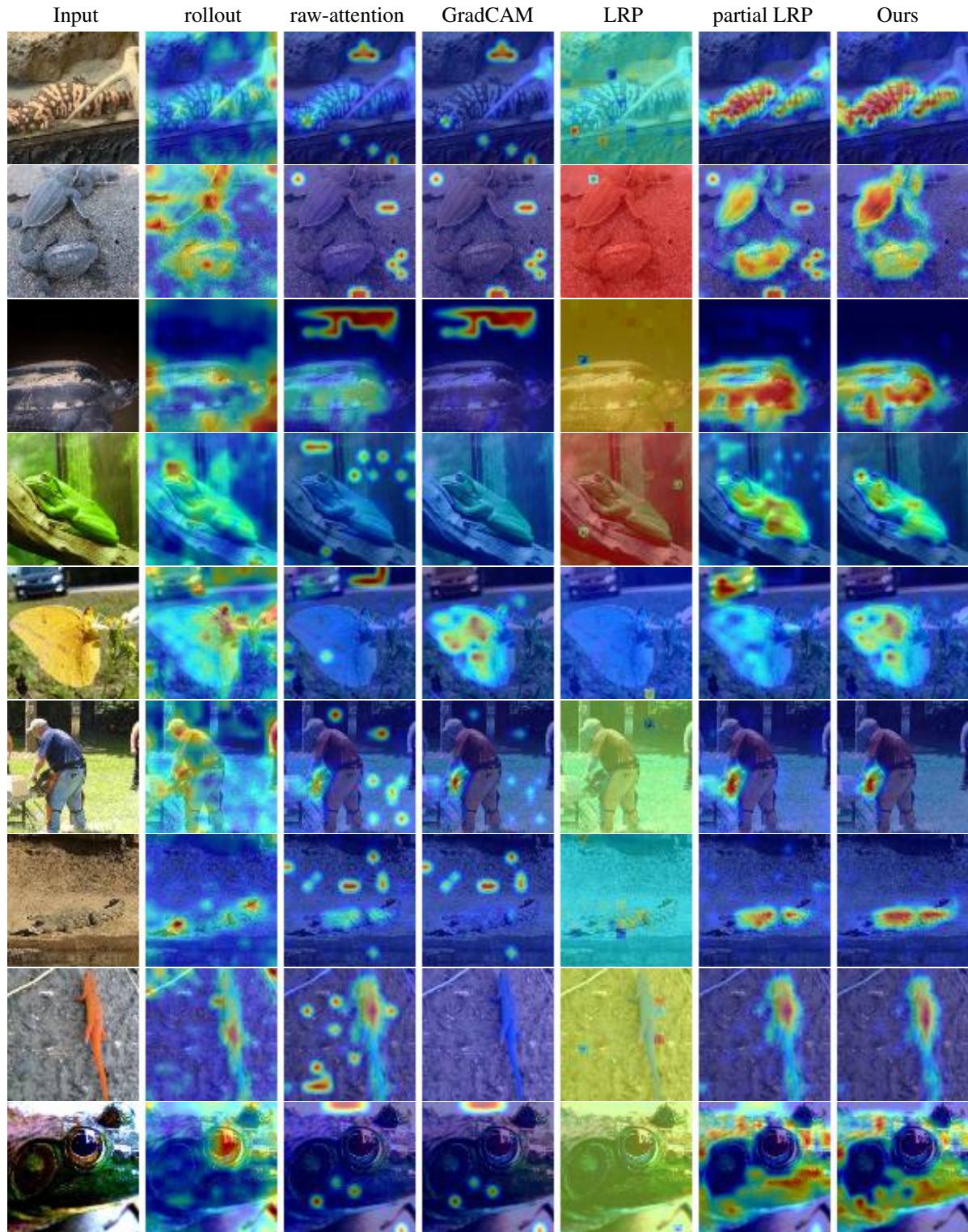


Figure 14: Sample images from ImageNet val-set.

F. Visualizations - Text

In the following visualizations, we use the TAHV heatmap generator for text (<https://github.com/jiesutd/Text-Attention-Heatmap-Visualization>) to present the relevancy scores for each method as well as the excerpts marked by humans. For methods that are class-dependent, we present the attributions obtained both for the ground truth class and the counterfactual class.

Evidently, our method is the only one that is able to present support for both sides, see panels (b,c) of each image. GradCAM often suffers from highlighting the evidence in the opposite direction (sign reversal), e.g., Fig. 15(g), in which the counter-factual explanation of GradCAM supports the negative, ground truth, sentiment and not the positive one.

Partial LRP (panels d,e) is not class-specific in practice. This provides it with an advantage in the quantitative experiments: PartialLRP highlights words with both positive and negative connotations from the same sentence, which better matches the behavior of the human annotators who are asked to mark complete sentences.

Notice that in most visualizations, it seems that the rollout method focuses mostly on the separation token [SEP], and fails to generate meaningful visualizations, this corresponds to the results presented in the quantitative experiments.

It seems from our results, e.g., Fig. 15(b,c) that the BERT tokenizer leads to unintuitive results. For example, “joyless” is broken down into “joy” and “less”, each supporting different sides of the decision.

[CLS] there may not be a critic alive who harbors as much affection for shock montages as i do . i delighted in the snappy - smart entertainment of ron underwood 's big - underground - worn yarn tremors ; i even giggled at last year 's critically savaged big - underwater - snake yarn anaconda , something about those films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghidrah , the creature from the black lagoon and the blob , deep rising , a big - underscored serpent yarn . **does** **it** **quite** **pass** **the** **test** ? sure enough , all the modern monster movies ingredients are in place : a conspicuously multi - ethnic / multi - national collection of bad guys , excuse me , characters ; an isolated location , here a derelict cruise ship in the middle of nowhere ; a cast of mostly unconvincing actors , here a bunch of tourists in a big explosion , here too many cheap , to - the - accidentals elements , like a shiny space invader (anthony head) who also happens to have a doctorate in marine biology , a shifty international jewel thief (flem jansen) whose white cotton tank top hides a heart of gold , as it happens , deep rising is noteworthy primarily for the mechanical manner in which it spits out all those ingredients , a terrorist crew , led by squinty - eyed mercenary hanover (wes studi) and piloted by squinty - eyed boat captain finnegam trell (warren williams) , shows up to loot the cruise ship ; the sea monsters show up to eat the mercenary crew ; a few survivors make it to the credits , and up go the lights . **it** **'s** **not** **so** **bad** **as** **you** **think** to work up much enthusiasm for this sort of joyless film - making , especially when a monster movie should make you laugh every time it makes you scream . **here** **the** **laughs** **are** **provided** **almost** **entirely** **by** **kevin** **j.** **o'** **connor** , generally amusing as the crew 's fraily - cat mechanic , writer / director stephen sommers seems most concerned with creating a tone of action - horror menace - something over - populated with gore - drenched skeletons , something where the gunplay and special effects are taken a bit too seriously , deep rising is missing that one unmistakable cut that we 're expected to have a ridiculous good time , not hide our eyes , case it point , comparing deep rising to its recent cousin anaconda , in deep [SEP]

[CLS] there may not be a critic alive who harbors as much affection for shocker monster movies as I do. I delighted in the sneaky - smart entertainment of ron underwood 's big - underground - worn yarn tremors ; I even giggled at last year 's critically - savaged big - underwater - snake yarn anaconda . something about these films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghidrah , the creature from the black lagoon and the blob . deep rising , a big - undersea - serpent yarn , does in place : I conspicuously multi - ethical / multi - national collection of bad guys , a bunch of scuba divers , a deranged scientist , a shark , a derelict oil rig , a giant chinless sea - son , some comic relief : a few egot - enhanced gung-ho , and at least one big explosion , there are lots - too , accidentally elements , like a shaggy sloping magnate (anthony head) who also happens to have a doctorate in marine biology , or a slinky international jewel thief (fanuke janssen) whose white cotton tank top hides a heart of gold , as it happens , deep rising is noteworthy primarily for the mechanical manner in which it spits out all those possibilities , a terrorist crew , led by squatly - eyed mercenary hanover (wes studi) and piloted by squatly - eyed boat captain finnegant (treat williams) , shows up to loot the cruise ship (the sun monsters show up to eat the mercenary crew) a few survivors make it to the closing credits , and up go the lights , it 's hard to work up much enthusiasm for this sort of less than ~~less~~ ~~more~~ ~~nothing~~ , especially when a monster movie should make you laugh every time it makes you scream . here , the laughs are provided almost entirely by kenn j . o 'connor , come to think of it , missing as the crew 's fratty - cat mechanic , writer / director stephen sommers seems most concerned with creating a load of action - horror menace - something over - populated with gore - drenched skeletons , something where the gunfire and special effects are taken a bit too seriously . deep rising is missing that one unmistakable cut that we 're expected to have a ridiculous good time , not hide our eyes . case in point , comparing deep rising to its recent cousin anaconda . in deep [SEP]



[CLS] there may be a critic alive who harbors as much affection for shock montages as i do . i delighted in the sneaky - smart entertainment of ron underwood 's big - underground - worn yarn tremors ; i even giggled at last year 's critically - savaged big - underwater - snake yarn anaconda , something about those films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghidrah , the creature from the black lagoon and the blob , deep rising , **a big** - underscored serpent yarn , **does n't** quite pass the test . sure enough , all the modern monster movies ingredient are in place : a conspicuously multi - ethnic / multi - national collection of bat , . excuse me , characters ; an isolated location , here a derelict cruise ship in the south pacific sea ; set pieces , **a few** , like a leg - wide open gross out ; at least one major character , **the** **big** **ugly** , played by a top - rated , well - educated , well - mannered , well - groomed , magnate (anthony head) who also appears to have a doctorate in marine biology , in a slinky international jewel thief (fiona banks) whose white cotton tank top hides a heart of gold , as it happens , deep rising **s** noteworthy primarily for the mechanical manner in which **it** splits out all those ingredients , a terrorist crew , led by squinty - eyed mercenary hanover (w studd) and piloted by squinty - eyed captain finnegan (trent williams) , shows up to loot the cruise ship ; the sea monster shows up to eat the mercenary crew ; a few survivors make it to the closing credits , and up go the lights , and **it** **'s** hard to work up much enthusiasm for **this** sort of **low** **end** **film** , **especially** when a monster movie should make you laugh every time it makes you scream . **here** the laughs are provided almost entirely by kevin j. o 'connor , generally amusing as the crew 's fraily - cat mechanic , writer / director stephen sommers seems most concerned with creating a tone - on - tone horror menace - something over - populated with gore - drenched skeletons , something where the gunfire and special effects are taken a bit too seriously , deep rising **s** missing that one unmistakable cue that we 're expected to have a ridiculous good time , not hide our eyes , case it point , comparing deep rising to its recent cousin anaconda . **in** **deep** **[SEP]**

[CLS] there may not be a critic alive who harbors as much affection for shocker monster movies as I do : I delighted in the sneaky - smart entertainment of ron underwood 's big - underground - worm yarn tremors ; I even giggled at last year 's critically - savaged big - underwater - snake yarn anaconda , something about these films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghirah , the creature from the black lagoon and the blob , deep rising , a big - undersea - serpent yarn . **[redacted]** i quite pass the test . however , all the modern monster movie ingredients are in place : a conspicuously multi - ethnic / multi - national collection of bait , excuse me , characters ; an isolated location , here a derelict cruise ship in the south china sea ; scenes of violence ; a hideously gross , overcooked meal at least one biggish victim , the one - off crew member , an accidental encounter like a giant magnate (anthony head) who also appears to have a doctorate in marine biology or a kinky international jewel thief (fanke janssen) whose white cotton tank top hides a heart of gold , as it happens , deep rising is noteworthy primarily for the mechanical manner in which it spits out all those ingredients , a terrorist crew , led by squinty - eyed mercenary hanover (wes studi) and piloted by squinty - eyed boat captain finnegam (treat williams) , shows up to lout the cruise ship the sea monsters show up to eat the mercenary crew ; a few survivors make it to the closing credits , and up go the lights , it 's hard to work up much enthusiasm for this sort of joyless film - making , especially when a monster movie should make you laugh every time it makes you scream **[redacted]** , the laughs are provided almost entirely by kenvin j. o 'connor , generally amusing as the crew 'sчат - chat mechanic , writer / director stephen sommers seems most concerned with creating a tone of action - horror menace + something over - populated with gore - drenched skeletons , something where the gunfire and special effects are taken a bit too seriously , deep rising is missing that one unmistakable cut that we 're expected to have a ridiculous good time , not hold our eyes . case in point , comparing deep rising to its recent cousin anaconda , in deep [SEP]



[CLS] there may not be a critic alive who harbors as much affection for shlock monster movies as i do ; i delighted in the sneaky - smart entertainment of ron underwood 's big - underground - worm yarn tremors ; i even giggled at last year 's critically - savaged big - underwater - snake yarn tremors ; something about these films causes me to lower my inhibitions and return to the satirically anonymous of my youth , spent in the company of gholish , the creature from the black lagoon and the blob . despite rising , a big blockbuster ~~and~~ ^{year} , does n't seem to test the staying power of all the godawful creature movies

[CLS] there may not be a critic alive who harbors as much affection for shlock monster movies as i do. i delighted in the sneaky - smart entertainment of ron underwood's big underground - snake yarn macnmonds ; i even giggled at last year's critically - savaged big underwater - worm yarn macnmonds , something about these films causes me to lower my inhibitions and return to the satirical afternoons of my youth , spent in the company of ghirahh , the creature from the black lagoon and the blob , devoured risqué big-budget drenched skeletons , and the creature from the fresh water . though in the modern marketplace ingredients are in place : a conspicuously multi - ethnic / multi - national collection of bait ... excuse me ... in place : an isolated location , here a derelict cruise ship in the south china sea , there are some comic relief : a few egz ⁱ enhanced gross - outs ; and at least one big explosion , they are too - comic - though - to - be - accidental elements , like a sloshy magnate (anthony head) who also appears to have a doctorate in marine biology , or a kinky international jewel thief (fanne janssen) whose white cotton tank top hides a heart of gold , as it happens , deep rising is noteworthy primarily for the mechanical manner in which it spits out all those ingredients , a terrorist crew , led by squinty - eyed mercenary hanover (wes studi) and piloted by squinty - eyed boat captain finnegant (trevor williams) , shows up to loot the cruise ship : the sea monsters show up to eat the mercenary crew ; a few survivors make it to the closing credits . and no go the lights , it 's hard to work up much enthusiasm for this red ⁱ of joyless film - making , especially when a monster movie should make you laugh every time it makes you scream . here , the laughs are provided almost entirely by kenn j. o 'connor , generally amusing as the crew 's fratty - car mechanic , writer / director stephen sommers seems most concerned with creating a tone of action - horror menace - something over - populated with gore - drenched skeletons , something where the gunfire and special effects are taken a bit too seriously . deep rising is missing that one unmistakable cue that you 're expected to have a ridiculous good time , not hide our eyes . case in point , comparing deep rising to its recent cousin anaconda , in deep [SEP]



[CLS] there may not be a critic alive who harbors as much affection for shlock monster movies as i do ; i delighted in the sneaky - smart entertainment of ron underwood 's big - underground - worn yarn anomalies ; i even giggled at last year 's critically savage big - underwater - snake yarn anomalies ; something about these films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghidrahs , the creature from the black lagoon and the blob , deep rising , **big** - underscored serpent yarn , **does** **it** **pass** **the** **test** , sure enough , all the modern monster movies i have seen in place in a single afternoon , **big** - **under**- **water** , **big** - **under**- **ground** , **big** - **out**- **there** , **big** - **in**- **the** **sea** , **big** - **explosion** , **big** - **creatures** , an isolated **ship** **in** **harbor** , **deep** **crisis** **ship** **in** **danger** , south china sea ; some comic relief ; a few egz - enhanced gross - outs , and at least one big explosion ; there are too - cheezy - to - be - accidental elements , like a sleazy shipping magnate (anthony horner) who also appears to have a doctorate in marine biology , or a skinty international jewel thief (fannek janssen) whose white cotton tank top hides a heart of gold , as it happens , **deep** **rising** , **a** **noteworthy** **primarily** **for** **the** **mechanical** **manner** **in** **which** **it** **spits** **out** **all** **those** **ingredients** , a terrorist crew led by squinty - eyed mercenary hanover (steve studi) and piloted by squinty - eyed boat captain finnegam (trent williams) , shows up to load the cruise ship ; the sea monsters show up to eat the mercenary crew ; a few survivors make it to the closing credits , and up go the lights . **it** **'s** **hard** **to** **walk** **up** **with** **much** **enthusiasm** **for** **the** **sort** **of** **low** **end** **film** , **big** - **ugly** , especially when a monster movie should make you laugh every time it makes you scream . **you** **laugh** , **you** **laugh** , the laughs are provided almost entirely by kenny 1.0 o' connor , generally amusing as the crew 's frady - cat mechanic , writer / director stephen sommers **seems** most concerned with creating a **ton** of action - horror menace - something over - populated with gore - drenched skeletons , something where the gunfire and special effects are taken a bit too seriously ; **deep** **rising** is missing that one unmistakable cue that we 're expected to have a ridiculous good time , not hide our eyes ; case it point , comparing **deep** **rising** to its recent cousin anaconda , in deep [SEP]

[CLS] there may not be a critic alive who harbors as much affection for shlock monster movies as i do . i delighted in the sneaky - smart entertainment of ron underwood ' s big underwater - worm yarn *anaconda* ; i even giggled at last year ' s critically - savaged blob - ghidrah , the creature from the black lagoon and the blob . *deep rising* , a big - underscored serpent yarn , does n't quite pass the test . still enough , all the more so because its weird ingredients are in place : a conspicuously dim and dim-witted main character , a bunch of squinty ingredients , a bunch of isolated locations , like a quiet cabin cutin' in the south china sea ; some comic relief ; a few eye - enhanced gross - outs ; and at least one big explosion . there are too , though - to be - accidental elements , like a shiny slapping magnate (anthony head) who also appears to have a doctorate in marine biology . or a skinky international jewel thief (fance janssen) whose white cotton top tent hide a heart of gold , as it happens , *deep rising* is noteworthy primarily for the mechanical manner in which it spits out all those ingredients . a terrorist crew , led by squinty - eyed mercenary hanover (wes studi) and piloted by squinty - eyed boat captain finegan (treat williams) , shows up to load the cruise ship ; the sea monsters show up to eat the mercenary crew ; a few survivors make it to the closing credits , and up go the lights . but it ' s hard to work up much enthusiasm for this sort of yucky film - making , especially when a monster movie should make you laugh every time it makes you scream . here the laughs are provided almost entirely by kevin j. o ' connor , generally amusing as the crew ' s fraidy - cat mechanic , writer / director stephen sommers seems most concerned with creating a tone of action - horror menace - something over - populated with gore - drenched skeletons , something where the gunplay and special effects are taken a bit seriously . *deep rising* is missing that something unmissable we that ' re expected to have a ridiculous good time , not hide our eyes . case in point , comparing *deep rising* to its recent cousin *anaconda* , in deep **SEP**



(j)

(k)

Figure 15: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention.

she stands as something as a young woman, and her husband's constraints of his basic command in the kitchen. Her husband (gleams fingerzal) is a religious scholar whose all - in a day's work attitude on sex fails to tame the " fire " she feels within, as she confesses to the robe (after hearing her fiery confessions). The robe suddenly gets frisky with his pleasantly surprised wife - and dies the next morning), sensing her frustration, her husband's brother (christopher ecclaston) suggests her a job in his jewelry brokering business in exchange for raw, passionless sex that just fans a cool blast of burning flame . Ric, the son, befriends ramon (allen payne) who, as a cool blust of burning flame , who does his own jewelery design when not working as a grum in an upscale jewelery store, can fire - taming be fair be that far behind for the ever - smoldering sonia ? just about everything in writer - director boak yarin 's film fails , starting with the impossible cast zellweger , payne , and ecclaston , though sonia 's (karen black) desire to be a sex goddess is a strong point . the film is set in a small town in new jersey , where sonia , a former college student , has been brought up by her parents , a former liberal , rich , and well - educated couple , who have fallen into abomination from their lofty , yakin attempts to open up in proceedings with a touch of magical realism in the form of the recurring presence of sonia 's long - dead brother 's ghost - make the most of even poor , bad , and dead . " i know you 're not here , " she expected . " i know something you have , but you don ' t have me . i know how you feel . i know what you did . i know how you react . " -michael jordan , on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997

"[C] remember seeing stars as sonia... a young jeweler who and her husband by the name of benjamin were constrictors scholar whose all - in - a - day work attitude on sex fails to tame the [REDACTED]"
she feels within, as she confesses to the rabbi (after hearing her confessions)
the rebbe suddenly gets frisky with his pleasantly surprised wife - - and dies the next morning) . sensing her frustration, her husband's brother (christopher eccllesiastes) gives her a job in his jewelry broker business in exchange for raw passionsex sonia , just a cool blast of hunkly puerto rican water who does his own jewelry designs when not working at a grunitz an upscale jewelery store can fire - taming be far that fear behind for the ever - smoldering sonia ? just about everything in writer - director boaz yakin's *big* (1994) is a little bit off - kilter, but the action (a hot - blooded world have been jihannam , action job) simply looks too wacky for the sake of a little heat world have been jihannam , margarita , who outshines zohwiger as sonia 's take - no - crap sister - in - law , sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll chintzatown , come off as [REDACTED] yakin attempts to spice up the proceedings with a touch magical realism - - in the form of the recurring presence of sonia 's long - dead brother 's ghost - make [REDACTED] story feel even more trite if it already is " i did n ' t know what to expect , it ' s like something you chase for so long , but then you do n ' t know how to react when you get it . i still do n ' t know how to react " — michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] sonia's younger sis - sonia , a young jewess and another friend, by the name of judy, who is also a jewess, her husband is another friend, a religious scholar who's all in - is a - a - work attitude on sex leads to tame the fire she feels within - as so she confesses to the rabbi (after hearing her fiery confession the rabbi suddenly gets frisky with his pleasantly surprised wife - and dies the next morning) , sensing his frustration, his husband ' s brother (christopher ecclaston) gives her a job in his jewelry brokering business in exchange for raw , passionless sex that juan costa ' s blunt hunko puerto rican water who does his own jewelery designs when not working as a grum in an upscale jewelry store can fire - taming to be far that be behind for the ever - smoldering sonia ? just about everything in writer - director boyan yakir ' s richly textured film is a bit off balance, a bit off kilter, a bit off balance, a bit off balance, an acting job but simply looks too wacky for the role, a little fitting would have been julianna margulies, who outshines teller as sonia ' s talk - no - crap sister - in - law , some of sonia ' s baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown, come off as silly , yanki attempts to spice up the proceedings with a touch of magical realism - all in the form of the recurring presence of sonia ' s long - dead brother ' s ghost - made the story feel even more tried than it already is . [I did n't know what to expect , it ' s like something you chase for so long , but then you don ' t know how to react when you get it . i still do n't know how to react . " - michael jordan , on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997] [SEP]



[CLNS] rene zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (glen frizerd) is a religious scholar whose all - in - a - day 's work attitude on sex fails to tame the " fire " she feels within , as so she confesses to the rebe (after hearing her fiery confessions). the rebe suddenly gets frisky with his pleasantly surprised wife - and dies the next morning) . sensing her frustration , her husband 's brother (christopher eccleston) gives just a hand in his jewelry brokering business in exchange for raw , passionate sex that just fans sonia 's still - burning flame . on the job , sonia befriends ramon (allen payne) , a cool blank of hukkah puerto rican water who does his own jewelry design when not working as a grunt in an upscale jewelry store . can fire - taming be far than that for behind the ever - smoldering sonia ? just about everything in writer / director boaz yakin 's rings fire , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too wagsy for the role , a better fit would have been julianne moore . the most outstanding zellweger as sonia 's take - no - crap attitude is a large part of sonia 's baby steps toward individuality , such as inking a tattoo - looking eye rail in chinatown . come off it ! boaz yakin intends to spice up the proceedings with a touch of racialized comedy . sonia 's husband is a deadbeat dad of sonia 's brother , dead brother jordan 's ghost - make [] very feel even more [] than it already [] . i did n 't know what to expect , it 's like something you chase for so long , but then you do n 't know how to react when you get it . i still do n 't know how to react . " - michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] renee zellweger stars as sonia, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn, her husband (glenn Fitzgerald) is a religious scholar whose all - in - a - day 's work attitude on sex makes the time " it " feels within, as she confesses to the rabbi (after hearing her fiery confession), the rabbi suddenly gets frisky with his pleasantly surprised wife - and die the next morning). sensing her frustration, her husband 's brother (christopher eccleston) gives her a job in his jewelry broker business in exchange for raw, passionless sex that just fans sonia 's still - burning flame, on the job , sonia befriends ronan (allen playboy), a cool blast of hukkah puerto rican water who does his own jewelry designs when not working as a grunt in an upscale jewelry store . can fire - taming be far that for beholding for the ever - smoldering sonia ? just about everything in writer - director brett yakim rings fire, starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too waxy for the role, a better fit would have been joshua jackson , who outsiders will remember sonia 's take - me - crap sister - in - law super - star of sonia 's baby steps toward liberation , such as indulging in a lamb . losinj egg roll chintzdown , come as you are [REDACTED] yakim attempts to spin up the proceedings with deadpan, deadpan, reindeer in the face of the gaudy presentation of sonia 's dead - breath ghost - a make - it - right feel even more fire than if already fire i did n't know what to expect . is it something you change for so long, but then you don't know how to react when you get it . i still do n't know how to react . " — michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21, 1997 [SEP]

[CLS] renes zellweger stars ~~in~~ **sonia**, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn, her husband (glenn Fitzgerald) is a religious scholar whose all-in - a day's - work attitude on sex fails to tame the "fire" she feels within, as she confesses to the rabbi (after hearing her fiery confession , the rabbi suddenly gets frisky with his pleasantly surprised wife - and dies the next morning) . sensing her frustration , her husband's brother (christopher eccleston) gives her a job in his jewelry brokering business in exchange for ~~and~~ **passionate sex** that just fans sonia's ~~and~~ still - burning flame. on the job , sonia befriends ranon (allen page) , a cool blast of hunky puerto rican water who does his own jewelery designs when not working as a grunt in an upscale jewelry store , can fire - taming be far be that far behind for the ever - smoldering sonia ? just about everything in winter - director bob yakin's **rings** false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks **too** ripe for the role , a better fit would have been julianna marginet , who owns sonia's zellweger's sonia's take - no - crap sister - in - law . **kosher egg** will in chutzpah , a baby steps toward liberalization such as indulging in a **lunch** - kosher egg roll in chutzpah off as silly , yakin attempts to spice up the proceedings with a **touch** of english realism - in the form of the recurring notion of sonia's **lose** - love affair with her ghost - make a story feel even more trite than it already is : " i did n't know what to expect , it 's like something you chase for so long , but then you do n't know how to react when you get it . i still do n't know how to **react** . . . " michael jordan **1** on winning his first nba championship in 1991 . . . or , my thoughts after **meeting** him **08** november 21 , 1997 [SEP]



[CLS] renee zellweger stars as sonia, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (glenn ferriday) is a religious scholar whose all - in - a - day 's - work attitude on sex fails to tame the " fire " she feels within , as so she confesses to the rebbe (after hearing her fiery confessions , the rebbe suddenly gets frisky with his pleasantly surprised wife) . and dies the next morning) . sensing her frustration , her husband 's brother (christopher eccleston) gives her a job in his jewelry brokering business in exchange for raw , passionate sex that just fans sonia 's " secret " burning flames ; on the job , sonia befriends rachel (alison Sudol) , a jew who is a bit of a bluestocking , and falls in love with her . when she is asked to appraise an engraving in an impulsive jewelry store , can fire - taming be far off than behind for the ever - smoldering sonia ? fast about everything in writer - director boaz yakin 's rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too wacky for style . a better fit would have been julianne margulies , who outshines zellweger as sonia 's take - no - crap sister - in - law , someone of sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown . the come off as silly attempts to spice up the proceedings with a touch of magical realism - in the form of the recurring presence of sonia 's long - dead brother 's ghost - make the story feel even more fake than it already is . i didn 't know what to expect . it 's like something you chase for so long , but then you do n't know how to react when you get it . i still do n't know how to react . " - mitchard jackson on winning his first oscar nomination in 1991 . . . or , my thoughts before meeting him on november 21 , 1997 [SEP]

[CLS] renee zellweger stars as sonia, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn, her husband (glen ferriday) is a religious scholar who's all - in : a day 's work attitude on sex fails to tame the fire " . she feels within , as so does her frisky with his pleasantly surprised wife - and dies the next morning ! sensing in his jewelry frustration , her husband 's brother (christopher eccleston) gives her a job in his jewelry business , becoming for raw , passionless sex that just fans sonia 's still - burning flames on the job , sonia begins to feel (albeit secretly) that she 's been sold short . she begins to feel that she 's been overpaid for her work as a grumpy in an upscale jewelry store ; can 't imagine how far he 's been holding back for the ever - smoldering sonia ! just about everything in writer - director boaz yakin rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too waspy for the role , a better fit would have been julianne margulies , who outshines zellweger as sonia 's mate - no - craps sister in law ! sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll chinatown , come off as silly , yakin attempts to spice up the proceedings with a touch of magical realism - in the form of the recurring presence of sonia 's long - dead brother 's ghost -- make the story feel more trite than it already is ! i did n't know what to expect , if i 's like something you chance for so long , but then you do n't know how to react when you get it . i still do n't know how to react . " -- michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] renee zellweger stars as sonia, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn. her husband (glenn Fitzgerald) is a religious scholar who all - in - a day ' s work attitude on sex fails to tame the " fire " she feels within ; as so she confesses to the rebbe (after hearing her fiery confession , the rebbe suddenly gets frisky with his pleasantly surprised wife - and dies the next morning) ! sensing her frustration , her husband ' s brother (christopher eccleston) gives her a job in his jewelry brokering business in exchange for raw , passionless sex that just fans noma ' s still - burning flame . on the job , sonia befriends ramon (alain affeck) , a plain blast of honest energy who does his best to keep her from getting involved with the man in an upscale jewelry store . sonia ' s first - tuning is far be that far behind for the ever - smoldering sonia # 2 about everything in winter - director boaz yakin ' s rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too wavy for the role ; a better fit would have been juliana margulies , who outshines zellweger as sonia ' s take - no - crap sister in i law . sonia of sonia ' s baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown , come off as silly ; yakin attempts to spin up the proceedings with a touch of magical realism - in the form of the recurring presence of sonia ' s long - dead brother ' s ghost - make the story feel even more trite than it already is . " i did n ' t know what to expect ; it ' s like something you chase for so long , but then you do n ' t know how to react when you get it . i still do n ' t know how to react . " -- michael jordan , on winning his first nba championship in 1991 ; or , my thoughts after meeting him on november 21 , 1997 [SEP]



[CLS] renee zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (gerald fitzgerald) is a religious scholar whose all - in - a - day ' s work attitude on sex fails to tame the " fire " she feels within , as she confesses to the rebbe (after hearing her fiery confessions !) the rebbe suddenly gets frisky with his pleasantly surprised wife -- and dies the next morning . sensing her frustration , her husband ' s brother (christopher eccleston) gives her a job in a jeweler ' s shop in exchange for her services . sonia ' s friend , a woman (elain pannier - lombard) , a cool blast of hunky puerto rican water who does her own jewelry designs when not working as a guest in an upscale jewelry store , can fire - taming be far that he behind for the ever - smoldering sonia ? just about everything in writer / director boaz yakin ' s rags false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too wacky for yakin to have been Julianne moore ' s margarita , who outshines zellweger as sonia ' s take - no - crap sister - in - law ; some of sonia ' s b steps travel toward liberation , such as indulging in a non - kosher egg roll in chinatown , come off as silly ; yakin attempts to spice up the proceedings with a touch of magical realism -- in the form of the recurring presence of sonia ' s long - dead brother ' s ghost -- make [a] story feel even more [than it already is] . i didn ' t know what to expect . it ' s like something you chase for so long , but then you do n't know how to react when you get it . i still do n't know how to react [] . -- mitchard jackson on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] renee zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn , her husband (glen ferriday) is a religious scholar whose all - in - a day ' s work attitude on sex fails to tame the " fr" she feels within , as she confesses to the rebbe (after hearing her fiery confessions , the rebbe suddenly feels frisky with his pleasantly surprised wife - and does the next morning .) sensing her frustration , her husband ' s brother (christopher eccleston) gives her a job in the jews - only jewelry store he runs in new york city . sonia , who is just fans of the show still having fun on the job , soon befriends emma (alisan paynter) , a cool blast of hukkah puerto rican woman who does her own jewelry designs when not working as a grunt in an upscale jewelry store , can fint - taming her fate is far that being fatigued for the ever - smoldering sonia ? just about everything in writer - director boaz yakin rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too waspy for the role , a better fit would have been julianne margulies , who outshines zellweger as sonia 's take - no - crap sister - in - law , whom sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll chinatown , come off as silly , yakin attempts to spice up the proceedings with a touch magical realism - - in the form of the recurring presence of sonia 's long - dead brother 's ghost -- make the story feel even more trite than it already is . " i did n't know what to expect , it 's like something you chase for so long , but then you do n't know how to react when you get it . i still do n't know how to react . " -- michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 .



Figure 16: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k)

...and a man who has been a good man all his life, and a good man's son, and a good man's son's son, and a good man's son's son's son, and so on, until he reaches the last man in the line, and that last man is about to strike earth, causing a catastrophe similar to the extinction level event (i.e., that wiped out the dinosaurs), what follows is the story of a president's bid to stop the good of his people, a rising reporter, the love story of two teenagers (one of whom discovered the comet), and a team of astronauts on the ship 'messiah' to save the world. firstly, there is nothing particularly *black* about it, in fact, it's quite the opposite, anything that sounds like a cliché is, but the plot lines make up the film form of a stupendous, to be honest, I was most moved by the trailer than the film itself which I did not enjoy much. mimi ledler's follow - up to *the peacemaker* is equally incompetent , with all the big stars wasted, I perhaps am annoyed that he released it as *the peacemaker* but it overshadowed *an american将军* (*the general*) it is very obvious that the title not only represented the big boom that will result from the collision, but also signifies the heavy impact on human lives , however, the film simply fails to deliver the effects of such an impact. the director, morgan freeman, and the director of photography, daniel rothman, are both men of good film - making credentials, she's still making good money though, I think, I mean, I'm a character, the news reporter, is the foundation of the story and of the cast, but her role can be easily replaced by any other actress, and as for rothman, robert drury's ailing astronaut is lifeless, and morgan freeman's president is restricted to , well, a righteous speech, I mean, he's not a bad speaker, he's got a good character, he's the one appealing one, and is played with reasonably conviction, but after becoming known when reporting for *newspaper*, but was definitely undermined by the director and screenwriter's warning speech included, but it's not irrelevant and predictable answer, I hope not, but I hope not, now, e. i. e. is threatening to exterminate more than 99 % of the human race ,

[CLS] there are so many things to criticize about it and I don't know where to start . . . I think it's a terrible movie . . . I mean, it's a terrible movie . . . I mean, it's a catastrophe because I think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . i . t .), that wiped out the dinosaurs what follows [is] the story of a president 's bid to think for the good of his people , a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship ' messiah ' to save the world . firstly , there is nothing outstandingly inferior about the making of the film (nor is there anything outstandingly good about it), but the plot holes make the film corny and stupid , to be honest , I was more moved by the trailer than the film itself (which I ' m not saying much) , mini-leader 's follow - up to ' the peacemaker ' is equally incompetent , with all the big stars wasted . (perhaps I ' m just annoyed that the release of ' the peacemaker ' in its overshadowed a far superior thriller , ' the assignment ') it is very obvious that the title only represents the big bummer that will result from the collision , but also the plot is extremely predictable and clichéd . the effects are way - out , the sub-standard screenplay limited the setting , and the director continued his sad run in terms of good - film - making credentials , she ' s still making good money though , t ' s leon ' s unfortunate character , the news reporter , is the foundation of the story and the cast , but [she] suffered from too many characters that do not need to be explored , robert duval ' s aging astronaut [is] lifeless , and morgan freeman ' s president [is] restricted to , well , a righteous president (which means he ' s not interesting at all) , leoni ' s character [is] the only appealing one , and I played with reasonable conviction (but a rather peculiar showing when reporting for nsbc) , but was definitely underplayed by the director and screenwriters warning : spoilers included (but a lot of it is irrelevant and predictable anyway) plot holes , plot holes , plot holes now , e . i . e . is threatening to exterminate more than 99 % of the human race , [SEP]

(a)

[CLS] there are so many things to criticize about i do n't know where to start recommendation : turn off your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . l . e .) that wiped out the dinosaurs what follows is a summary of the president 's bid to think of the good of the people a rising reporter ; the love story of two teenagers (one of whom discovered the comet) and , as a team of scientists on the mission of the day to find the comet , was outstandingly sympathetic about the making of the film (the film is there and amazing) , is absolutely brilliant about the plot holes (the film is there and amazing) , to be honest , i was more moved by the trailer than the film itself (which is n't saying much) , mind i 's follow - up to the ' peacockman ' is equally incompetent , with all the big stars wasted . (perhaps i 'm just annoyed that the release of ' the peacockman ' in us overshadowed a far superior thriller , ' the assignment ') it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply fails that note . the effects are worn - out , the substandard screenplay limited the acting , and the director committed the sin of sins in terms of good ' film ' making credentials : she 's still a director , but she has no directorial style . the film is a mess , and it is the foundation of the story and of the cast . though dun jill film from us to many characters that do not need to be explored , robert dun jill 's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) , leon 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for duty) , but was definitely underplayed by the director and screenwriters . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) ! plot holes , plot holes , plot holes now , e . l . e . is threatening to exterminate more than 99 % of the human race , [SPEECH]

[CLS] there **were** so many things to criticize about **i do n't know** where to start. recommendation : **turn off** your brain - do **a** lte be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophic similar to the extinction level event (e . i . e .) that wiped out the dinosaurs , what follows is the story of a president 's bid to think for the good of the people , a rising reporter ; the love story of two teenagers (one of whom discovered the comet) , and a team of scientists who **want** to " save the world " , firstly , there was a **lot** of information really inferior about the making of the film , and the story was stupendously outstanding (about as good as it got) , but the plot holes were **tiny** , and the story , to be honest , i was more moved by the trailer than the film itself (which is n't saying much) in minder 's follow - up to the " peacemaker " is **equally** competetive with all the big stars wasted . (perhaps i 'm just annoyed that the release of " the oblivious " in us overshadowed a far superior thriller , ' the assignment ') it is very obvious that the title not only represents the big boom that will result from collision , but also conveys the heavy impact on humans lives . however , if you simple look at that on the note , the effects are worn out , the substandard in terms of goal - film - screening credentials , she 's still unable to make the connection between the two characters , and the lack of depth in the foundation of the story and of the cast , but , **it's** filled from **so many** characters that do not need to be explored . robert dulay 's aging astronaut is **bleeding** , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) , leoni 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for inclusion) , but was definitely undervalued by the director and screenwriters warning : spoils included (but a lot of it is irrelevant and predictable anyway) plot holes , plot holes , plot holes , **now** , e . i . e . is threatening to exterminate more than 99 % of the human race [SEP]

(d)

[CLS] there're so many things to criticize about i do n't know where to start recommendation : turn off your brain - do n't let me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing catastrophe similar to the extinction level event (e . l . e .) that wiped out the dinosaurs what follows is the story of a president 's bid to think for the good of his people a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astrophysicists on the ship that saves the world [CLS] and that's not even mentioning the subplot involving the son of a rich man and astrophysicist (understandably good at math) , but the plot holes in the film are just stupendous [CLS] to be honest i was more moved by the trailer than the film itself (which is n't saying much) , mini leder 's follow - up to ' the peacemaker ' is equally incomprehensible with the big stars wasted [CLS] i perhaps i'm just annoyed that the release of ' the peacemaker ' in us overshadowed a far superior thriller , ' the assignment ' [CLS] it 's very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives , however , the film simply fails on that note : the effects are worn - out , the substancial screenplay limited the acting (and the director compounded his sins in terms of cost) [CLS] making credentials [CLS] she 's a scientist , she 's a widow , she 's a mother , she 's a widow , she 's a mother , she 's a widow , she 's the foundation of the story and of the cast , but the film suffers from too many characters that [CLS] need not be explored , robust [CLS] saging astronaut [CLS] lifeless , and morgan freeman 's president is restricted to , well , a righteous president , which means he [CLS] is not interesting at all) , leoni 's character [CLS] the only appealing one , and [CLS] plays with reasonable conviction (but a rather peculiar showing when reporting for msbs) , but was definitely undervalued by the director and screenwriters : warning : spoilers included (but a lot of it is irrelevant and predictable anyway) , plot holes , plot holes , plot holes [CLS] now , e . l . e . is threatening to exterminate more than 99 % of the human race , [CLS]

[CLS] there **were** so many things to criticize about i do n't know where to start. recommendation : turn off your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . i . e .) that wiped out the dinosaurs , what follows is the story of a president 's bid to find the good of his people , a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of scientists who find the ship **“Galaxy”** to save the world . firstly , there is a lot of action packed into the film , but the plot holes are the film 's main stumbling block . personally , i am not a fan of the movie , but i must say that the acting was outstandingly good about it , but the plot holes were the film 's main problem . to be honest , i was more moved by the trailer than the film itself (which is n't saying much) , mini leder 's follow - up to the "peacemaker" is equally incompetent , with all the big stars wasted . (perhaps i 'm just annoyed that the release of "the peacemaker" in us overshadowed a far superior thriller , "the assignment") . it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives , however , the film simply fails on that note . the effects are worn - out , the substandard screenwriting limited the acting , and the director committed her sad run in terms of goal - film - screening credentials . she 's still a director though , and i hope she can make better movies in the future .

“Galaxy” foundation , the story and of the cast , but the film suffers from too many characters that do not need to be explored , robert duval 's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) . leoni 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for nsmbc) , but was definitely underdeveloped by the director and screenwriters . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) . plot holes , plot holes , plot holes , plot holes , now , e . i . e . is threatening to exterminate more than 99 % of the human race . [SEP]

(g)

[CLS] there are so many things to criticize about it don't I know where to start recommendation : sum of your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . l . e .) that wiped out the dinosaurs what follows is the story of a president's bid to think for the good of his people a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship "messiah " to save the world ! firstly , there is nothing more stupidly幼稚 than the thinking of the film (nor is there anything more ridiculous than the way it is presented) . but i plot holes , plot holes , plot holes . to be honest , i was more moved by the trailer than the film itself (which is n't saying much) . mind leder 's follow - up review : the peacemaker is equally incompetent with the big stars wasted ! (perhaps i'm just annoyed that the release of the peacemaker in us overshadowed a far superior thriller , the assignment) it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply fails to note the effects are worn out , the subsystem screenplay limited the acting (and the note) . the effects are worn out , in terms of gender - film , making credentials ? she 's a woman , she 's a woman , she 's a woman . the film is a mess . the plot holes , the flaws , the foundation of the story and the cast . but film is a story , a character , a character that do not need to be explored . robert downey 's aging astronomer is lifeless , and morgan freeman 's president is restricted to , well , a righteous speech (which means he is not interesting at all) . leon is a character the only appealing one , and is played with a reasonable conviction (but a rather peculiar showing when reporting for msnbc) , but was definitely underplayed by the director and screenwriter . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) 99 % plot holes , plot holes , plot holes ! now ; e . l . e . is threatening to exterminate more than 99 % of the human race !

[CLS] there're so many things to criticize about i don't know where to start recommendation : turn off your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing catastrophe similar to the extinction level event (e . l . e .) , what about the dinosaurs ? what follows is the story of a president's bid to think of whom the good people of his country , a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship "sophie " to save the world . first , there is nothing more irritating than finding the "making of " (or not , if there any) , understanding a good team (it), but the plot holes in the film are so many , to be honest , i was more moved by the trailer than the film itself (which is n't saying much) , mind leder 's follow - up to "the peacemaker" is equally incompetent , with the big stars wasted . (perhaps i'm just annoyed that the release of "the peacemaker" in us overshadowed a far superior thriller , "the assignment") , it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply fails at that note . the effects are worn - out , the subsystem screenplay limited the acting , and the director commanded his cast in a state of god - film - making credentials . she's still trying to make a mark , though , it is evident in her desire to make the most of the foundation of the story and of the cast , but the film suffers from too many characters that do not need to be explored , robust duval's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) . leoni is the only appealing one , and is played with reasonable conviction (but a rather peculiar when reporting for insube) , but was definitely undervalued by the director and screenwriters . warning : spoilers included ! but a lot of it is irrelevant and predictable anyway .) plot holes , plot holes , plot holes . now , e . l . e . is threatening to exterminate more than 99 % of the human race .

(j)

(k)

[CLS] do n't let this movie fool you into believing the romantic noms de guerre of Shakespeare... we must truly understand the heart and soul of this man except through his work... and this movie makes a vain attempt at that... I mean, it's a glorified biopic, I know, which is why I'm not too harsh on it, but I still think it does not only suffer from his biography rather than expand on his greatest... **[REDACTED]** more about his life, although well written, **[REDACTED]** **[REDACTED]** made up - on a man whose life was probably more poork and potatos... rather than lobster and champagne... oh well, let's fantasise onwards and upwards... I mean, I think he was a bit of a flirtations play - write... who falls in love with a beautiful woman (gwyneth paltrow) and from her inspiration, several plays develop... **[REDACTED]** and juilet... and **[REDACTED]** and **[REDACTED]** the twelfth night... it is easier for me to believe that he had a weird dream and that's how all his plays develop, but please spare me all of this unnecessary melodrama, but i guess my version probably would n't draw a crowd or make a platform on screen... so is there any justification in romanticising the man Shakespeare... when all we need to do is read his work in order to find his soul... I think not... as for the oscars... were they deserved by this movie? i think not... in many aspects? private ryan' and life is beautiful' were far superior movies... but one should never assume that this should be a criteria for winning an oscar... as time and again, for reasons unexplained an undeserving movie will win the accolade... another sore point is the fact that gwyneth won the best female lead... over a more polished mate, but i guess if you go on enough about your grandfather dying and your nephew being hospitalised... people will start feeling sorry for you... [SEP]

[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare... we will truly understand the heart and soul of this man except through his work... and this movie makes a valiant attempt at this, and moves to glorify his life... which probably makes up most of his work, and the rest of his life from his achievement rather than expand on his greatness... **ryan** moves about his life, although well written, **ryan** is much more up on a whos life was probably more pork and watermelons, rather than lobster and champagne... oh well, let's fantasise onwards an assume that he was a bit of a flirtations play - write, who falls in love with a beautiful woman (gwyneth paltrow) and from her inspiration, several plays develop - romeo and juliet , and the twelfth night , it is easier for me to believe that he had a wet dream and that's how all his plays develop, but please spare me **all** of this unnecessary melodrama , but i guess my version probably would n't draw a crowd or make a dollar on screen , so is there any justification in romanticising the man shakespeare... when all we need to do is read his work in order to find his soul , i think not . as for the oscars were they deserved by this movie ? i think not , in many aspects ? private ryan and ? life is beautiful were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained , an undeserving movie will win the accolade... another sore point is the fact that gwyneth won the best female lead , over a more polished actress , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . **[SEP]**



[CLS] do n't let this movie fool you into believing the romantic noids of william shakespeare, no one will truly understand the heart and soul of this man except through his work, and this movie makes a vain attempt at that, any move to ? glorify his life, which hollywood has an annoying tendency to do, will only subtract from his achievement rather than expand on his greatness. the movie about his life, although well written, puts too much made - up on a man whose life was probably more poork and potatoes, rather than lobster and champagne. oh well, let's fall in love with a beautiful woman, gwyneth paltrow is a great actress, she is a star, and she is a beauty, but she is not juliet, and she is not the twelfth night', it is easier for me to believe that he had a wonderful dream and that's how all his plays develop, but please spare me all of this unnecessary melodrama, but i guess my version probably would n't draw a crowd or make a blockbuster on screen, so is there any justification in romanticising the man shakespeare, when all we need to do is read his work in order to find his soul, i think not, as for the oscars were they deserved by this movie ? i think not, in many aspects ? private ryan 'and life is beautiful' were far superior movies, but one should never assume that this should be a criteria for winning an oscar , as time and again, for reasons unexplained an undeserving movie will win the accolade, another sore point is the fact that gwyneth won the best female lead , over a more polished cast , but i guess if you go on enough about your granddad dying and your nephew being hospitalised - people will start feeling sorry for you. [SEP]

[CLS] do n't let this movie fool you into believing the romantic nora of william shakespeare... no one truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt that at , any move to ? glorify his life , which hollywood has an **un**joying tendency to , do will only subtract from his achievement rather than expand on his greatness . **the movie** about his life ; although well written , **put** too much - up on a man whose life was probably more poork and potatoes , rather than lobster and champaign . oh well , let's fantasise onwards and assume that he was bit of a flirtations **write** , who falls in love with a beautiful woman , she falls in love with him , they have a son , and then he dies . and jupiter , and jupiter , and " the twelfth night " , it is easier for me to believe that he had a wretched dream and that's how all his plays develop , but please spare me all of this unnecessary melodrama , but i guess my version probably would n't draw a crowd or make a lot of money on screen , so is there any justification in romanticising the man shakespeare when all we need to do is read his work in order to find his soul . i think not . as for the oscars were they deserved by this movie ? i think not , in many aspects ? private ryan ' and life is beautiful ' were far superior movies , but one should never assume that this should be a criteria for winning an **oscar** , as time and again , for reasons unexplained an undeserving movie will win the accolade . another sore point is the fact that gwyneth won the best female lead , over a more polished mate , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]

[CLS] do n^t let this movie fool you into believing the romantic nioes of william shakespeare , no one will truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt at that , any moves to ? glamourise his life , which hollywood has an annoying tendency to do , will only subtract from his achievement rather than expand on his greatness | this movie about his life , although well written | puts too much made - up on a man whose life was probably more pork and potatos , rather than lobster and chagne | who hell , lets fantasise onwards an assume that he was a bit of a flirtatious play - write , who in love with a beautiful woman , gwyneth paltrow , and had a son with her , and then had a son with juliet , and ... | and the twelfth night | it is easier for me to believe that he had a wet dream and that's how all his plays develop , but please spare me all of this unnecessary melodrama | but i guess my version probably would | i draw a crown or make a dollar on screen | so there is any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul , i think not . as for the oscars were they deserved by this movie ? i think not , in many aspects ? private ryan ? and life is beautiful | ~~superior movie~~ , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained , an undeserving movie will win the accolade | another some point is the fact that gwyneth won the best female lead , over a more polished date , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]



[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare... no one will truly understand the heart and soul of this man except through his work... and this movie makes any attempt at that, any to glorify his life, which hollywood has an annoying tendency to do, will only subtract from his achievement rather than expand on his greatness. this movie about his life, although well written, puts too much make - up on a man whose life was probably more poork and potatoes, rather than lobster and champagne. oh well... let's fantasise about an assume that he was a bit of a flirtations play - writer, who fell in love with an beautiful woman (gwyneth paltrow) and from her inspiration... several plays develop... ? someone asked me if i liked it? the twelfth night i thought was the best, because he had a wonderful turn as the captain... plays develop their phases, and this is not the best phase of the play, but i guess my version probably would n't draw a crowd or make a buzz on screen, so there is any justification in romanticising the man shakespeare, when all we need to do is read his work in order to find his soul. i think not, as for the oscars were they deserved by this movie ? i think not, in many aspects? private 'yan' and 'yan'? life is better! were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again, for reasons unexplained an undeserving movie will win the accolade ; another sore point is the fact that gwyneth won the best female lead, over a more polished mate , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you. [SEP]

[CLS] do n't let this movie fool you into believing the romantic noms of william shakespeare... no one could truly understand the heart and soul of this man except through his work... and this movie makes a vain attempt at that... any moves to 'glamorise' his life, which hollywood has an annoying tendency to do, will only subtract from his achievement rather than expand on his greatness... this movie about his life... although well written... puts too much make - up on a man whose life was probably more porkies and potatoes... rather than a floriferous play - write... who fell in love with a beautiful woman (gwyneth paltrow) and from her inspiration... several plays developed... ? romantic... ? tragic... ? the two main ones... i would like to believe that he had a very strong dream and that's what his plays develop... but please ignore all of the gaudy melodrama... but i guess my version probably would n't draw a crowd or make a dollar on screen... so is there any justification in romanticising the man shakespeare... when all we need to do is read his work in order to find his soul... i think not... as for the oscars... were they deserved by this movie ? i think not... in many aspects ? private ryan ' and life is beautiful ' were far superior movies... but one should never assume that this should be a criteria for winning an oscar... as time and again... for reasons unexplained an undeserving movie will win the accolade... another sore point is the fact that gwyneth won the best female lead... over a more polished caste... but i guess if you go on enough about your grandfather dying and your nephew being hospitalised... people will start feeling sorry for you... [SEP]

[CLS] do n't let this movie fool you into believing the heart and soul of this man except through his work , and this movie makes a vain attempt at that , any moves to glorify ' his life , which hollywood has an annoying tendency to do , will only subtract from his achievement rather than expand on his greatness ' this movie about his life , although well written , puts too much make - up on a man whose life was probably more pork and potatoes , rather than a lifestyle and champagne . oh well , lets have a fantasia onwards an assume that he was a bit of a flirtation play - write . who fell in love with a beautiful woman (gwyneth paltrow) and from her inspiration [several plays develop] - romantic and yet , i still don't buy it . i mean , i can believe that he had a wife , but that's about it . that's all his plays developed into , please stop . i am not a huge melodyman , but i guess my version probably would n't draw a crowd or make a dollar on screen . so is there any justification in romanticising the man Shakespeare , when all we need to do is read his work in order to find his soul . i think not , as for the oscars were they deserved by this movie ? i think not , in many aspects " private ryan " & life is beautiful ' were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained , an undeserving movie will win the accolade . another some point is the fact that gwyneth won the best female lead , over a more polished cate , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]



[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare... no one will truly understand the heart and soul of this man except through his work, and this movie makes a vain attempt at that, any moves to glamorise his life, which hollywood has an amazing tendency to do, will only subtract from his achievement rather than expand on his greatness. I above his life, although well written, puts too much made - up on a man whose life was probably more poork and potatoes, rather than lobster and champaign! oh well... let's fantasise about an assume that he was a bit of a flirtation play - writer, who fell in love with an beautiful woman (gwyneth paltrow) and from her inspiration... several plays develop -? someone asked me if i'm right? the twelfth century is what i believe he had a wedding around that time... the plays developed their phases and the play was met meant but i guess my version probably would n't draw a crowd or make a lot of money on screen, so there is any justification in romanticising the man shakespeare... when all we need to do is read his work in order to find his soul. i think not, as for the oscars were they deserved by this movie ? i think not, in many aspects? private ryan ' and life is beautiful were far superior movies, but one should never assume that this should be a criteria for winning an oscar , as time and again, for reasons unexplained an undeserving movie will win the accolade another sore point is the fact that gwyneth won the best female lead, over a more polished cast , but i guess if you go on enough about your grandfathers dying and your nephew being hospitalised - people will start feeling sorry for you. [SEP]

[CLS] do n't let this movie fool you into believing the romantic nosis of william shakespeare, no one will truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt at that , any moves to ? gloriamis his life , which hollywood has an annoying tendency to do , will only subtract from his achievement rather than expand on his greatness . this movie about his life , although well written , puts too much make - up on a man whose life was probably more pork and potatoes , rather than a life of splendor and champagne . oh well , let's fallow inwards and assume that he was a bit of a flirtster play - write , who falls in love with an beautiful woman (gwyneth paltrow) and from her inspiration , several plays develop - ? romantic , yes , but the two characters in this play , i would like to believe that he had a strong dream and that is what his plays develops , but please ignore all of the sordid melodrama , but i guess my version probably would n't draw a crowd or make a dollars on screen , so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul , i think not , as for the oscars were they deserved by this movie ? i think not , in many aspects ? private ryan ' and saving private ryan 's were both great movies , but i never thought that they deserved the oscars , life is beautiful ' were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained an undeserving movie will win the accolade , another sore point is the fact that gwyneth won the best female lead , over a more polished cate , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . **SJP**



Figure 18: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (negative sentiment). Note that the BERT prediction on this sample was accurate. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention

it's a good thing most animated sci - fi movies come from japan, because " titan a.c. " is a good example of how not to do it. the plot is so thin, the characters are so flat, the animation is so imposed upon you, from what i can tell it's about a young man named kai who's one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race - that's a fine premise for an action - packed sci - fi animated movie, but in the end, the story takes the main characters all over the galaxy in their search for a legendary ship called the "evil dredge" aliens want to destroy for no apparent reason, so in the process we get a lot of spaceship fights, fistfights, blaster fights and more double - crosses than you can shake a stick at. the animation is decent, the universe is well drawn, the sound effects are good, there are some nice scenes, but the ending is a letdown, the characters are unconvincing, and the overall effect is just plain boring, despite the fantastic animation and special effects, it's just an interesting movie.

[CLS] it's a good thing most animated sci - fi movies come from japan , because a man named kubo who 's one of the last survivors of earth in the early 21st century has unknowingly possesses the key to saving and re - generating what 's left of the human race . that 's a fine premise for an action - packed sci - fi animated movie , but there is no payoff . the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dreadge" alliance want to destroy for no apparent reason . so in the process we get a lot of spacefights , lightnings , blaster fights and most double - crosses than you can shake a stick at . there 's so much sci - fi action packed into it 's too much to take , the galaxy here is a rip - off of the "star wars" universe . the creators do n't bother filling in the basic details which makes the story confusing , the characters unmotivated and superficial and the plot just plain boring . despite the fantastic animation and special effects , it 's just an interesting movie . [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because titan a . e . what if Hollywood does n't have a clue how to do it . do i do n't know what this film is supposed to be about , from what i can tell it 's about a young man named kane who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that 's fine a premise for an action packed sci - fi animated movie , but there 's no payoff . the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dredge" allows want to destroy for no apparent reason . so in the process we get a lot of spaceship fights , hijackings , blaster fights and more double - crosses than you can shake a stick at . there 's so much pointless sci - fi banter it 's too much to take . the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the basic details which makes the story confusing , the characters unmotivated and superficial and the plot just plain boring . despite the fantastic animation and special effects , it 's just not very interesting . [SEP]

(a)

[CLS] it's a good thing most animated sci - fi movies come from japan, because "battat a. e." is proof that hollywood doesn't have a clue how to do it. i do n't know what this film is supposed to be about : from what i can tell it is about a young man named kyle who is one of the last survivors of earth in the early 21st century who unknowingly possesses the key to saving and re - generating what is left of the human race. that's a fine premise for an action - packed sci - fi animated movie, but there's no payoff. the ~~plot~~ takes the main characters all over the galaxy in their search for a legendary ship that the evil "dredge" aliens want to destroy for no apparent reason. so in the process we get a lot of spacehips flights, blasters, blaster lights and more double - crosses than you can shake a stick at, there's so much pointless set - fi banter it's too much to take. the galaxy here is a total rip - off of the "star wars" universe: the creators do n't bother filling in the basic details which makes the story confusing, the characters uninvolved and superficial and the plot just plain boring... despite the fantastic animation and special effects, it's just not interesting movie. [SEP]

[CLS] it's a good thing most animated sci - fi movies have come from *japan* , because a t . e . c . is proof that hollywood doesn't have a clue how to do it . i don't know what this film is supposed to be about . from what i can tell it is about a young man named kalo who's one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that's a fine premise for an action - packed sci - fi animated movie , but there's no payoff . the **hero** takes the main characters all over the galaxy in their search for a legendary ship that the evil "dread" aliens want to destroy for no apparent reason . so in the process we get a lot of spaceship lights , blaster lights and most double - crosses than you can shake a stick at . there's so much pointless sci - fi bait it's too much to take , the galaxy here is a total rip - off of the "star wars" universe . the creators do not bother filling in the basic details which makes the story confusing , the characters uninteresting and superficial and the plot just plain boring . despite the fantastic animation and special effects , it's just not an interesting movie . [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because it's a , e . " is proof that hollywood does n't have a clue how to do it . i do n't know what this film is supposed to be about , from what i can tell it 's about a young man named kai who 's one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race , that 's a fine premise for an action - packed sci - fi animated movie , but there 's no payoff . and i think the main characters all over the galaxy in their search for a legendary ship that the evil "dredge" aliens want to destroy for no apparent reason , so in the process we get a lot of spaceship fights , blaster fights and more double - crosses than you could shake a stick at , there 's so much pointless sci - fi banter it 's too much to take , the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the basic details which makes the story confusing , the characters unconvincing and the plot just plain boring , despite the fantastic animation and special effects , it 's just not an interesting movie .

(d)

[CLS] it's a good thing most animated sci fi movies come from japan, because i think that a t . e . proof that hollywood doesn't have a clue how to do it [I don't know what that film is supposed to be about] from what i can tell it's about a young man named kalo who [one of the last survivors of earth in the early 31st century who] unknowingly possesses the key to saving and re - generating what is left of the human race [that's a fine premise for an action packed sci fi animated movie, but there is no payoff] the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dread" aliens want to destroy for no apparent reason [so in the process we get a lot of spaceship fights, fistfights, blaster fights and more double - crosses than you can shake a stick at there's so much pointless sci fi banter it's too much to take] the galaxy here is a total rip - off of "star wars" universe the creators do a t biffering in the basic details which makes the story confusing , the characters uninteresting and superficial and the plot just plain boring [despite the fantastic animation and special effects, it is not an interesting movie.] [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because [SEP] " it " is proof that hollywood doesn't have a clue how to do it . i do n't know what this film is supposed to be about . from what i can tell it 's about a young man named kai who [REDACTED] one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that 's a fine premise for an action - packed sci - fi animated movie , but there 's no payoff . the story takes the main characters all over the galaxy in their search for a legendary ship that the evil " drelle " aliens want to destroy for no apparent reason . so in the process we get a lot of spaceship fights , fistfights , blasters fights and more double - crosses than you can shake a stick at here [REDACTED] so much pointless sci - fi bait it 's too much to [REDACTED] the galaxy here is a total rip - off of the " star wars " universe the creators do n't bother filling in the basic details which makes the story confusing , the characters unimpressive and the plot just plain boring . despite the fantastic animation and special effects , it 's just not an interesting movie . [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because titan a . e . i . o . is proof that hollywood does n ' t have a clue how to do it . do n ' t know what this film is supposed to be about , from what i can tell it ' s about a young man named halo who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that ' s fine premise for an action - packed sci - fi animated movie , but there ' s no payoff . the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dredge" aliens want to destroy for no apparent reason . so in the process we get a lot of spaceship fights , fistfights , blaster fights and more double - crosses than you can shake a stick at . there ' s so much pointless sci - fi banter it ' s too much to take . the galaxy here is a total rip - off of the "star wars" universe the creators do n ' t bother filling in the basic details which makes the story confusing , the characters unconvincing and the plot just plain boring , despite the fantastic animation and special effects , it ' s just not an interesting movie . [SEP]

(g)

[CLS] it's a good thing most animated s_f movies come from japan, because i think tina a. c. [SEP] proof that hollywood does n't have a clue how to do it [do n't] know what this film is supposed to be about [from what i can tell it's about a young man named kyle who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race [that] is a fine premise for an action : packed sci - fi animated movie , but there is no payoff [the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dredge" aliens want to destroy for no apparent reason so in the process we get a lot of spaceship fights , fistfights , blaster fights and more double - crosses than you can shake a stick at [there is so much pointless sci - fi banter it is too much to take] the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the basic details which makes the story confusing the characters unconvincing and superficial and the plot just plain boring [despite these fantastic animation and special effects , it is just not interesting to me] [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because a man named kai who 's one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and - regenerating what is left of the human race . that 's a fine premise for an action - re - sci - fi animated movie , but there is no payoff , the story takes the main characters all over the galaxy in their search for a legendary ship that the evil ' drelle ' aliens want to destroy for no apparent reason , so in the process we get a lot of spaceship fights , fistfights , blaster fights and more double - crosses than you can shake a stick at , there 's so much pointless sci - fi bait it 's too much to take , the galaxy here is a total rip - off of the ' star wars ' universe the creators do n't bother filling in the basic details which makes the story confusing , the characters unimpressive and the plot just plain boring , despite the fantastic animation and special effects , it 's just not an interesting movie **MEH**

(j)

methods that are not bit-exact when replacing the class appears stochastic. Some words are split into multiple tokens by the FST. Our method for the ground truth [GT] class. (c) Our method

near for both the correct class and the opposite one. The rollout BERT tokenizer. (a) Ground truth (**negative** sentiment). Note the method for the counter-factual [CFL] class. (d) Partial LRP for the

(k)

Figure 19: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention.

"my inner frag" was at least - last month when night at mike's [sic] we had a long discussion about it, i'd seen a few webbs and thought they were at least a few inadvertentists from ultra-s serious jock webbs when there was nothing else on tv... even though "dragnet" is out of circulation at the moment, we wabb an' fans still have the d.i. - a 50's propaganda pic for the military that is almost hilariously as the famous "blue boy" episode of "dragnet" - for anyone like me who got laughs out of webb's rapid fire speeches and straight-faced seriousness, think of the d.i. ... as what would happen if sgt. joe friday ever enlisted, because he played exactly the same character here, a no-nonsense oiler far enlusted, with disdain for the younger generation and loves to give long-winded, melodramatic speeches on any topic... in this election year, i'm more convinced than ever that webb and bob do were separated at birth... the movie owns in characteristic fashion as one recent attack another knock on webb's office door and enters... he gives each one a different series of cringe-worthy answers, then turns to the camera and says "the problem is..." and after a few minutes and yet more goes without saying, this is his voice all the way, and after **[redacted]** twenty minutes of him chewing out his recruits for no reason... i was wondering what would even be a plot... i certainly would have been entertained by an hour and a half of trademark webb rants, but the d.i. gives us more -- much **[redacted]** webb's mission is to make a man out of private owns, the local screw-up : the captain gives webb three days to convert owns into marine material or, the captain will "personally cut the lace off his panties and ship him out myself." (whether the "lace panties" part refers to webb or owns remains unanswered) **[redacted]** of course, gives webb an excuse to focus all his crotchetty energy on making owns' life a living hell, for those of you who haven't been indoctrinated into the pleasures of webb watching, here **[redacted]** is a typical monologue of his: i can't duplicate his hilarious delivery on paper, but the words should at least partially convey what i'm talking about... . . . [SEP]

[CLS] my first was at - had - last year when nick at milt public dragged me to see bob dole at a campaign rally. i was there for the laughs, though, getting at least a few inadvertent laughs from nick's jock webb when there was nothing else on tv, even though "draget" is out of circulation at the moment. we webb bubs - fans still have the d. i., a 50's propaganda piece for the military that i almost think of as the famous "blue boy" episode of "draget" - for anyone like me who laughs out of webb's rapid fire speeches and straight-faced seriousness, think of the d. i. as whatever happened if sgt. joe friday ever enlisted, because he plays exactly the same character here, a no-nonsense oil狂 who looks with disdain at the younger generation and loves to give long-winded, melodramatic speeches on any topic. in this election year, i'm more convinced than ever that webb and bob dole were separated at birth. the movie open in characteristic fashion as one recent after another knocks on webb's door and enters, he gives each a different version of what he's been doing, and then, the "you're not a player" by jackie o. and pretty much goes without saying, this is his movie all the way, and after the first twenty minutes of him chewing out his recruits for no reason, i was wondering if there would ever be a plot. i certainly would have been entertained by an hour and a half of trademark webb rants, but the d. i. gives us more -- much more. webb's mission is to make a man out of private owns, the local screw-up, the captain gives webb three days to convert owns into marine material or, the captain will "personally cut the lace off his panties and ship him out myself." (whether the "lace panties" part refers to webb or owns remains unanswered.) this, of course, gives webb an excuse to focus all his crotchety energy on making owns' life a living hell. for those of you who have n't been indoctrinated into the pleasures of webb watching, here's a reprint of a typical monologue of his: i can't duplicate his hilarious delivery on paper, but the words should at least partially convey what i'm talking about. . . . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet" reruns off the air , sun , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we Webb anti - fans still have the d . i . [REDACTED] 50 's propaganda piece for the military that [REDACTED] almost as hilarious as the famous "blue boy" episode of "dragnet" . for anyone like me who laughs out loud of webb 's rapid - fire speeches and straight - faced seriousness , think of the d . i . as what would happen if sgt . fraser's final year enlisted , because he plays exactly the same character here , a no - nonsense , fair - go looks with a deadpan delivery . the production values are low budget , make believe , and it has echoes on any topic . in this election year , i 'm more convinced than ever that webb and bob dylan were separated at birth . the movie opens in characteristic fashion as one recruit after another knocks on webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up , the "produced and directed by jack webb" card pretty much goes without saying . this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more - - much more . webb 's mission is to make a man out of private owners , the local screw - up , the captain gives webb three days to convert owners into marine material or , the captain will "personally cut the face of his pants and ship him out myself ." (whether the "lace pants" part refers to webb or owners remains unanswered .) this , of course , gives webb an excuse to focus all his crotchety energy on middle owners and living room , for those of you who haven 't been indoctrinated into the pleasure of webb watching , here 's a reprint of a typical monologue of his . i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet" reruns off the air... i'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we Webb & fans still have the d . i . [§ 50] propaganda piece for the military that is almost hilarius as the famous "blue boy" episode of "dragnet" . for anyone like me who got caught out of webb's rapid - fire speeches and straight - faced seriousness , think of the d . i . what would happen if greg . joe fiday ever enlisted . because he plays exactly the same character here , a no - nonsense , fast talker who looks with disdain at the younger generation and gives long - winded explanations of his own opinions on topics in this section year ... i'm more concerned than ever that webb and bob doyle separated at birth . the movie opens in characteristic fashion as one recruit after another knocks on webb's office door and , he gives each one a different series of crticisms before the credits come up . the "produced and directed by jack webb" card pretty much goes without saying , this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if what would ever be a play ... i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more -- much more , webb's mission is to make a man out of private owns , the local screw - up , the captain gives webb three days to convert owns into marine material or , the captain will "personally cut the lace off his panties and ship him out myself" . (whether the "lace panties" part refers to webb or owns remains unanswered) His [§ 50] of course , gives webb an excuse to focus on his crotchetiness energy on making owners "live a living hell" . for those of you who haven't been indoctrinated into the pleasures of bbb watching , here '§ 50' reprint a typical monologue of His [§ 50] can 't duplicate his hilarius delivery on paper , but the words should at least partially convey what i 'm talking about . . . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet " reruns off the air . sure , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , we webb anti - fans still have the d . i . [REDACTED] '50's propaganda piece for the military that is almost as hilarious as the famous " blue boy " episode of " dragnet ." for anyone like me who grew laughs out of webb 's rapid , fire speeches and straight - faced seriousness , think of the d . i . as what would happen if sgt . joe friday ever enlisted , because he plays exactly the same character here . a more ... unconvincing farce looks like it would be a waste of time . i am not looking forward to the webb - style speeches and topics ... in this election year . i 'm more convinced than ever that webb and bob bobs were separated at birth . the movie opens in characteristic fashion as one recruit after another knocks on webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up . the produced and directed by jack webb " card pretty much goes without saying . this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us [REDACTED] - much [REDACTED] , webb 's mission is to make a man out of private owners , the local screw - up , the captain gives webb three days to convert owners into marine material , or the captain will " personally cut the lace off his panties and strip him out myself ." (whether the " lace panties " part refers to webb or owners remains unanswered .) [REDACTED] of course , gives webb an excuse to focus all his crotchety energy on making owners a live living hell . for those of you who have n 't been indoctrinated into the pleasures of webb watching , here 's [REDACTED] of a typical monologue of his . i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet" reruns off the air , sun , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we webb anti - fans still have the d . i . , a 50 's propaganda piece for the military that is almost as hilarious as the famous "blue boy" episode of "dragnet" . for anyone like me who grew up on webb 's rapid - fire speech and straight - faced seriousness , think of the d . i . what would happen if god friday ever existed ... because we play exactly the same character here , a man - in - motion , far too wholed up with didactic , over - zealous generalizations and given a few winded understatements on any topic ... in this election year , i 'm more convinced than ever that webb and bob were separated at birth , the movie opens in characteristic fashion as one [REDACTED] after another knocks on webb 's office door and enters . he gives each one a different series of cranky criticisms before the credits come up , the "produced and directed by jack webb" card pretty much goes without saying . this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there even would be a plot . i could certainly have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more ! - much more . webb 's mission is to make a man out of private swans , the local screw - up , the captain gives webb three days to convert swans into marine material or , the captain will "personally cut the face off his panties and ship him out myself ." (whether the "lace panties" part refers to webb or swans remains unanswered .) this , of course , gives webb an excuse to focus all his crotchety energy on making swans live a living hell , for those of you who have n 't been indoctrinated into the pleasures of webb watching , here 's a reprint of a typical monologue of his . i can 't duplicate his histrionic delivery on paper , but the words should at least partially convey what i 'm talking about . . . **[SEP]**

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet reruns off the air , sure . i 'd seen them all at least once , but i could always count at least a few ~~even~~ laughs from ultra - serous jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we Webb an - fans still have the d ::;; , a 50 's propaganda piece for the military that is almost as hilarious as the famous "blue boy" episode of "dragnet" for anyone like me who got caught out of webb 's rapid - fire speeches and straight - faced seriousness (think of the d ::;; , as what would happen if sgt . joey friday ever enlisted , because he played exactly like a recruit) . i still have the first few parts with the younger generation growing up so long , winded , pinched - faced expressions on such topics ; in this section year , i 'm more concerned than ever that webb and bob doyle were separated at birth ; the movie opens in characteristic fashion as one recruit after another knocks on webb 's office door and , he gives each one a different series of cranky criticisms before the credits come up : the "produced and directed by jack webb" card pretty much goes without saying ; this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if those words would ever be a part ; i certainly would have been entertained by an hour and a half of trademark webb rants , but the d ::;; gives us more -- much more ; webb 's mission is to make a man out of private owns : the local screw - up ; the captain gives webb three days to convert owns into marine material or , the captain will "personally cut the lace off his panties and ship him out myself" . whether the "lady panties" part refers to webb or owns remains unanswered . owns , of course , gives webb an excuse to focus all his crotchety energy on making owns "live a living hell" ; for those of you who have n ::;; been indoctrinated into the pleasures of webb watching , here 's a reprint of a typical monologue of his ; i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . //

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet " reruns off the air . sure , i 'd seen them all at least once , but i could always count on at least a few ~~red~~^{blue} laughs from ultra - serious jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , weeb anti - fans still have the d . i . , a 50 's propaganda piece for the military that is almost as hilarious as the famous " blue boy " episode of " dragnet " for anyone like me who got laughs out of webb 's rapid - fire speeches and straight - faced seriousness ⁱ think of the d . i . as what would happen if sgt . joe fryer ever enlisted , would give perfect justice to the character . it 's a short farce with lots of dialogue , intergenerational comedy and some very long , winded bureaucratic speeches on any topic . ⁱ in this election year , i 'm more convinced than ever that webb and bob dole were separated at birth , the movie opens in characteristic fashion as one recipient after another knocks knock on webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up , the " produced and directed by jack webb " card pretty much goes without saying : this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . ⁱ certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more -- much more ! webb 's mission is to make a man out of private owns , the local screw - up ; the captain gives webb ~~three~~ days to convert owns into marine material or , the captain will " personally cut the lace off his panties and strip him out myself " . whether the " lace panties " part refers to webb or owns remains unanswered . ⁱ of course , gives webb an excuse to focus all his crotchety energy on masking owns ' life as a living being ; for those of you who have n't been indoctrinated into the pleasures of webb watching , here 's a reprint of a typical monologue of his : i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . ⁱ [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet " reruns off the air ^{sigh} . i'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , we Webb anti - fans still have the d . i . [REDACTED] 50's propaganda piece for the military that is almost as hilarious as the famous " blue boy " episode of " dragnet " . for anyone like me who grew up laughs out of webb's rapid - fire speeches and straight - faced seriousness , think of the d . i . as what would happen if sgt . joe Friday ever enlisted . because he plays exactly the same character here , a no - nonsense old fart who looks with disdain at the younger generation and likes to give long , wordy , melodramatic speeches on any topic , in this episode i'm more convinced than ever that webb and his crew were spot on . think of it this way : webb's speech patterns are so characteristic of the d . i . that at birth , he was given the name " dragnet " . after another knocks on webb's office door and enters , he gives each one a different series of criticalny criticisms before the credits come up : this " produced and directed by jack webb " card pretty much goes without saying ; this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i certainly would have been entertained by a hour and a half of trademark wbbb rants . **the d . i . gives us [REDACTED] - much [REDACTED] webb 's mission is to make a man out of private owners , the local screw - up : the captain gives webb three days to convert owners into marine material or , the captain will " personally cut the face off his pants and ship him out myself ! " (whether the " lace panties " part refers to webb or owners remains unanswered !) this , of course , gives webb an excuse to focus all his crotchety energy on making own 's life a living hell , for those of you who have n't been indoctrinated into the pleasures of webb watching , here 's a reprint of a typical monologue of his : i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . . . [SEP]**

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet reruns of the summer . . . sure , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serous jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , we webb and i - fans still have the d . i . , a 50 's propaganda piece for the military , that is almost as hilarious as the famous " blue boy " episode of " dragnet ." for anyone like me who got caught out of webb 's rapid - fire speeches and straight - faced seriousness , think of the d . i . as what would happen if sgt . joe Friday ever enlisted , because he plays exactly the same character here , a no - nonsense old fart who looks with disdain at the younger generation and loves to give long - winded , melodramatic speeches and answers to people in the most condescending way possible . i mean , that's what webb does best . we were separated at birth , the movie opens in a characteristic fashion : one recruit after another knocks on webb 's office door and enters , he gives each one a different series of brutal , caustic criticisms before the credits come up , the " produced and directed by jack webb " card pretty much goes without saying , this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if they would even be plants , i certainly would have been entertained by an hour and a half of trademark webb i . plants , but the d . i . gives us more -- much more . webb 's mission is to make a man out of private owns , the local screw - up , the captain gives webb three days to convert owns into marine material or , the captain will " personally cut the lace off his panties and ship him out myself ." (whether the lace panties " pants " refers to webb or owns remains unanswered .) this , of course , gives webb an excuse to focus all his crochety energy on making owns ' life a living hell , for those of you who haven 't been indoctrinated into the pleasures of webb watching , here 's a reprisal of a typical monologue of his . i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . . . **SIMP**

Figure 20: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) IRP for the GT class. (i) IRP for the CF class. (j) rollout. (k)

[CLS] star wars ? episode i - the phantom menace (1999) director : george lucas cast : han leia , ewan mcgregor , annette portman , jake lloyd , ian mcdiarmid , samuel l . jackson , rayford fawcett , terence stamp , natalie august , franz o . grothe , ralph fiennes , anthony head , gilbert kneller , george lucas , philip seymour hoffman , amandla stenberg , amu distribution : 20th century fox rated : pg-13 violence / thematic elements copyright 1999 nathaniel r . atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i 've attempted to obey this rule in recent months , but to do so would be impossible in this case : the fact is , nearly everyone who goes to see the phantom menace brings baggage with them , the original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child ; they are masterful , original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . i am not young , to see the second star wars in the theater during its original run was a thrill . i am not old enough to go to see the original star wars trilogy , and the other critics stuck back in george lucas would be making the first trilogy in the nine - film series i got excited , when i first saw screenshots from the film , when the reviews were released last thanksgiving , i was ready to see the film , but then **theron** was the **hyp** , the **teaser** marketing campaign , and lucasfilm 's secretive shenanigans over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or tuc - to - bell . i just wanted to see the movie reader , do not misunderstand . i did not have an anti - hype reaction . the hype was unavoidable , i understand and accept the hype - it 's just what happens when [SEP]

[CLS] star wars ? : episode i - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jude law , ian mckellen , samuel l. jackson , oliver ford davis , annette bening , frank oz , anthony hopkins , ray park , ralph fiennes , christopher meloni , anthony edwards runtime : 131 min , us distribution : 20th century fox rated pg-13 mild violence thematic elements copyright 1999 nathaniel r. atchison a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case : the fact is , nearly every person who goes to see the phantom menace brings baggage with them , the original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child ; they are masterful , original works of art that mix moving stories with what are astonishing special effects at the time (and they still hold up pretty darn well) . i am too young to have seen star wars as the third movie in its original run , but i have heard from those who did that it was a disappointment . the original star wars trilogy , and the empire strikes back in particular , [REDACTED] are three items on a very short list of why i love movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , well over a year ago , i embarked on a year - long drool of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm ' s secretive snobbery over the picture . in the last weeks before the picture opened , while multitude of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand : i did not have an anti - hype reaction , the hype was unavoidable . i understand and accept the hype ; it ' s just what happens when [SEP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : han nesson , ewan mcgregor , natalie portman , jake lloyd , ian mcdormand , samuel l. jackson , oliver ford davis , stephen patt , perrilla august , frank oz , almedro best , kenny baker , anthony danials screenplay : george lucas producers : richie mecca runtime : 131 min . us distribution : 20th century fox rated pg : mild violence ; thematic elements copyright 1999 nathaniel r. atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . - i've attempted to obey this rule in most reviews , but to do so in this case would be the fact is , neil gaiman , a personal friend who goes by the name phantom menace because he is a fan of the original star wars trilogy means so much to so many people , for me , they calibrated my creativity as a child ; they are masterful | original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) , but that does n't make me any less dedicated to it . on the contrary , star wars trilogy - and the empire strikes back in particular - are three items on a very short list of why i love movies when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited . when i first saw screenshots from the film , well over a year ago , i embarked on a year - long droop of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film . but then there was the hype , the insane marketing campaign , and lucasfilm's sneaky shobbery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the freezing sun days in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie reader . do not misunderstand , i did not have any anti - hyp reaction , the type was unavoidable , i understand , and i accept the hype - it's just what happens when [SENP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid , benedict cumberbatch , oliver ford davis , terrence stamp , pennella august , frank oz , alfred molina , benny kerner , anthony daniels screenplay : george lucas producers : rick mccallum runtime : 131 min . us distribution : 20th century fox rated pg ; mild violence ; thematic elements copyright 1999 nathaniel r. atchison a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . " i ' ve attempted to obey this rule in my reviews , but to do so consistently in this case , the fact is , is nearly impossible . person who goes to see the phantom menace is not a child . he is a grownup . original star wars trilogy means so much to so many people , for me , they calibrated my creativity as a child ; they are masterpiece ! original works of art that mix movie storytelling with what was astonishing special effects at the time (and they still hold up pretty darn well) , but i am too young to have seen star wars in the theater during its original release . but , that does n't make me any less dedicated to it . on the contrary , star wars trilogy - - and the empire strikes back in particular - - are three items on a very short list of why i love movies when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , when over a year ago , i embarked on a year - long dream of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm ' s secretive shooover behind the picture , in the last weeks before the opening opened , while multitudes of fans waited outside of theaters and stood in the freezing sun days in advance just to be the first ones in the theater . i was tired of hearing about it . i was tired of seeing cartoonish cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand , i did not hate an anti - hype reaction . the hype was unavoidable . i understand and i accept the hype it - - is just what happens when [SEP]

[CLS] star wars : ? episode i - ~~the~~ the phantom menace (1999) director : george lucas cast : liam neeson , evan mcgregor , natalie portman , jake lloyd , ian mcdiarmid , samuel l . jackson , oliver ford davis , terence stamp , pernilla August , frank oz , ahmed best , kenny baker , anthony daniels screenplay : george lucas producers : rick mecumall runtime : 131 min . us distributor : 20th century fox rated pg : mild violence , thematic elements ~~explosive~~ 1999 nathanial t . atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . ⁱ ve attempted to obey this rule in recent months , but to do so would be impossible in this case . the fact is , nearly everything i have to say about this movie is either based on the original star wars trilogy means so much to so many people for me , they utilized my creativity as a child : they are masterful , original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) , i am too young to have seen star wars in the theater during its original release , but that does n't make my age less dedicated to ~~it~~ , on the contrary , ~~the~~ star wars trilogy - and the empire strikes back in particular - are three items on a very short list of why i ~~love~~ movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , well over a year ago , i embarked on a year - long drool of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm 's secretive snobbery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it : i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand : i did not have any anti - hype reaction , the hype was unavoidable . i understand and accept the hype - it 's just what happens when [SEP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : han nesson , ewan mcgregor , natalie portman , jake lloyd , ian mcdormand , samuel l. jackson , oliver ford davis , terence stamp , perrilla august , frank oz , almedro best , kenny baker , anthony danIELS screenplay : george lucas producers : richie meckball runtime : 131 min . us distribution : 20th century fox rated pg - mild violence , thematic elements copyright 1999 nathaniel r. atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . " i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case , the fact is , nearly everyone who goes to see the phantom menace brings baggage with them . the phantom star wars trilogy means so much to so many people , for me , they calibrated my maturity as a child ; they are beautiful original works of art that move me deeply . well , i am a grown up now , and i have critical eyes . i can see the strengths and the flaws , but i am too young to have seen star wars in the theaters during its original release . but , that does n't t make me any less fond of it . " on the contrary , star wars trilogy ... and the empire strikes back in particular ... are three items on a very short list of why i love movies when i heard that george lucas would be making the first trilogy in the nint - film series i got excited . when i first saw screenshots from the film , well over a year ago , i embarked on a year + long dream of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film . but then there was the hype , the intense marketing campaign , and lucasfilm ' s snobby shovery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was first hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see **an movie reader** , do not misunderstand , and did not have an anti - hype reaction . the hype was unavoidable . i understand and accept the hype **it is** just what happens when **SEP**

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : han nesson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid samuel l. jackson , oliver ford davis , terrence stamp , perrilla august , frank oz , alfred bett , kenny baker , anthony danIELS screenplay : george lucas producers : richie meckalbaum runtime : 131 min . us distribution : 20th century fox rated pg ; mild violence , thematic elements copyright 1999 nathaniel r. atchison a fellow critic once stated his belief that a reviewer should not speak of himself in his reviews . i 've attempted to obey this rule in recent months , but to do so would be impossible in this case . the fact is , nearly everyone who goes to see the phantom menace brings baggage in with them . the original star wars trilogy seems so much to so many people , for they , they calibrated my creativity as a child ; they areasterisks or reminders of the most moving stories with which we were imbued . i am a special kind of person in the time (and they will hold up pretty well) but that does n't make me any less dedicated to it . on the contrary , the star wars trilogy ... and the empire strikes back in particular -- are three items on a very short list of why i love movies . when i heard that george lucas was making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , when over a year ago , i embarked on a year - long doodle of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm 's secretive shyness over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the scorching sun in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand , i did not hate an **ant** **hypE** just what the hype was unavoidable . i understand and accept the hype -- it 's just what happens when [SEP]

[CLS] star wars : ? episode i - the phantom menace (1999) director : george lucas cast : han nelson , ewan mcgregor , natasha portman , jake lloyd , ian mckellen , samuel l. jackson , rolf ford davies , terence stamp , pernilla August , frank oz , Ahmed best , kenny baker , anthony daniels screenplay : george lucas producers : rick meccum runtime : 131 min . us distributor : 20th century fox rated pg : mild violence , thematic elements copyright 1999 marnathal t. atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case . the fact is , nearly every person who goes to see the phantom menace brings baggage in with them . the original star wars trilogy means so much to so many people . for me , they calibrated my taste as a child ; they are musical , original works of art that mix moving stories with wacky science-fiction special effects . i have seen it well over a dozen times now . i am too young to have seen star wars in the theater during its original release , but that does n't make me any less dedicated to it . on the contrary , the star wars trilogy - and the empire strikes back in particular - are three items on a very short list of why i love movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited . when i first saw screenshots from the film , well over a year ago , i embarked on a year - long drool of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucashism 's secretive snobbery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand . i did not have an anti - hype reaction . the hype was unavoidable . i understand and accept the hype - it ' s just what happens when [SEP]

[CLS] star wars : ? episode i : the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid , samuel l. jackson , oliver ford davis , terrence stamp , pennsyl angust , frank oz , almedred best , kebony baker , anthony danis screenplay : george lucas producers : rich mccallum runtime : 131 min . us distribution : 20th century fox rated pg : mild violence ; thematic elements [copyright] 1999 lucasfilm ltd a lucas film a fellow citizen once stated his belief that a reviewer should not speak of himself in his own review . i've attempted to obey this rule in recent months , but to do so would be impossible in this case ! the fact is , nearly everyone who goes to see the phantom menace brings baggage in with them . the original star wars trilogy means so much to so many people for me , they calibrated my creativity as a child ; they are masterful original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . i am too young to have seen star wars in the theater during its original release , but i was very young when i first saw it on vhs . i am a fan of the original trilogy , and the empire strikes back in particular . i got three items on a very short list of why i like star wars : when i heard that george lucas would be making the first trilogy in the nine - film series i got excited . when i first saw screenshots from and when the first preview was released last thanksgiving , i was ready to see the film but then there was the hype , the marketing campaign , and lucasfilm's sneaky shobbery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the scorching sun in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whether it went to kfc or taco bell . i just wanted to see the movie ! reader , i do not understand , and accept the hype -- it 's just what happens when sepi is unavoidable . i understand and accept the hype -- it 's just what happens when sepi is unavoidable .

[CLS] star wars : ? episode i - the phantom menace (1999) director : george lucas cast : han nesson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid samuel l. jackson , oliver ford davis , terrence stamp , pennella august , frank oz , alfred bett , kenny baker , anthony daniles screencap : george lucas producers : rick mccallum runtime : 131 min . us distribution : 20th century fox rated pg ; mild violence , thematic elements copyright 1999 nathaniel r. atchison a fellow critc once stated his belief that a reviewer should not speak of himself in his own review . " i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case . the fact is , nearly everyone who goes to see the phantom menace brings baggage in with them . the original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child : they are masterful , original works of art that mix moving stories with what were astonishing special effects at the time (and still hold up pretty darn well) . i am too young to have seen star wars in the theater during its original release , but i have seen it on television , and have been drawn to it since . the original trilogy - and the empire strikes back in particular - are three items in a very short list of why i love movies : when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , when over a year ago , i embarked on a year - long doodle of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm ' s secretive snobbery over the picture , in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the scorching sun in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cartoon cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie reader , do not misunderstand , i did not hate an anti - hyped movie . the hype was unavoidable , i understand and accept the hype - it ' s just what happens when ~~SEED~~

Figure 21: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) IRP for the GT class. (i) IRP for the CF class. (j) rollout. (k)

martial arts master steven seagal (not to mention director!) has built a career out of playing an allegedly fictitious martial arts superstar who never gets hurt in fights, talks in a honed tone, and squints at any sign of danger - he's also the most consistent individual in hollywood today. i mean, he's been in every movie ever made, and i'm sure the guy's good, and he looks like a real stud on talk shows, although a tad haughty. i mean, he's been in every movie ever made, and he's been in every movie ever made mortally, then comes back with a vengeance and goes buddha on all the baddies asses (although i kinda think "under siege"), of course, this one, as a change, has a "message" that is drilled into our mind ... of course, after he blows up a lot of stuff and kills a bunch of people. ... but i mean, i can't stand steagal, i really can't stand him, i don't even like him, this will never be his best movie (i mean, i think he's a good supporting role, but i don't see his executive function (i am definitely not a fan of his executive function)), but this has one special place in my heart. but does it mean it's good to have been blind? this was the last movie i watched with my deceased uncle, and we had one hell of a time ripping it apart a la "mystery science theatre 3000," ... and this was a couple years before i heard of "mystery science theatre 3000." in this one, seagal plays a worker for a mining factory set in alaska and by the gospised - up typical shallow main, this time played by an ex-con who gives the movie some more clout - what can i say, it's a movie that wants to do something with his oil factory that includes him dumping oil all over the land, ... around the 20-30 minute point, seagal speaks up to him in what seems to be the typical speech to all the vain entrepreneurs (what with his new "fire down below," another "message film"), and canis has him dumped off ... or does he? seagal is rescued by some mutts, and

[CLS] martial arts master steve seagal (not to mention director !) has built a career of playing an allegedly fictitious martial arts superhero who never gets hurt in fights, talks in a husky tone, and squints at any sign of danger . he 's also the most consistent import in hollywood today . his movies suck , they barely represent his egotistical tendencies , and his voice is that of a man who 's been in one too many talk shows . he looks like a nice guy on talk shows , although a tad hammy , but those movies he makes are all the same : a guy who is basically indestructible , is maybe wounded supposedly mortally , then comes back with a vengeance and goes buddha on all the baddest asses (although i kinda liked "under siege") . of course , this one , as a change , has a "message" that is drilled into our mind . . . of course , after he blows up a lot of stuff and kills a bunch of people , so why do i watch his crap ? i usually don 't , i will never , and you could hold me to that . i will never pay to see this man 's movies , unless , and only unless , he 's in a supporting role (i . e . "executive decision") and i 'd definitely pay if he does (i . e . "executive decision") . but this one has a special place in my heart . this does n't mean it 's good or that i even like it . this was the last movie i watched with my deceased uncle , and we had one hell of a time ripping it apart a la "mystery science theatre 3000" . and this was a couple years before i had heard of "mystery science theatre 3000" . in this one , seagal plays a worker for a mining factory set in alaska and runs into the greased - up typical shallow villain , this time played by an oscar - winner to give the movie some more oomph - michael caine . it seems that caine wants to do something with his oil factory that includes him dumping oil all over intact land . around the 20 - 30 minute point , seagal speaks up to him with what seems to be the typical speech to all the vat entrepreneurs : what with his new "fire down below , another "message film") , and can heains him bumped off . . . or does he ? seagal is rescued by some units , and [SEP]

[CLS] martial arts master steven seagal (not to mention director !) has built a career on playing an allegedly fictitious martial arts superhero who never gets hurt in fights, talks a big game, and squirms at sign of danger - he's the most consistent
hypocrite in hollywood since all his critics. i mean, he's got a
skepticalism about his art (that is, martial art) ... i'm sure the guy's a good
and he seems like a nice guy on talk shows, although a tad haughty, but those movies he makes are all the same: a guy who is basically indestructible, is maybe wounded
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to do something with his oil factory that includes him dumping oil all over inuit
land, around the 20-30 minute point ... seagal speaks up to him what to do with
the typical speech to all the vain entrepreneurs (what with his new " fire down below",
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Figure 23: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw attention.

'biententorial man' is a film without any entential motifs, but the exception of swindling the innocent, fed by entertainment, chris columbus, the director who gave you "mrs. doubtfire", plays on sentimental strings and mushy dialogue to make his point... based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which you can imagine is very difficult... starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children... soon this robot, called andrews (robin williams) shows abilities that makes his owner, mr. martin ('san neil') very curious... andrew is interested in art and music... he enjoys 'making' clocks, which clearly shows that he is not a simple machine... in short, he is a machine with feelings in it... for 'critical critics' and 'positionists'... andrew has quickly gained a good name, this makes him unique and his evil creators worried... then mr. martin decides to teach andrew all things he was not programmed to... soon andrew wants to leave the house in pursuit of freedom, destiny and love... this film can be described as a disneyesque version of blade runner, a film that still shines as the biggest gem in the crown of science fiction... ever since that film, the subject of humanity still stands as one big controversy... what makes us human? the thoughts? the emotions? is it possible to become human? at what point can we say to a robot "now you are one of us"? these are very tough questions that require a serious and thurial approach... i always like the character of andrew... i had him very seriously, when you think about it... he has been built with the building of the question "what is what is being a machine? what is being human?"... but... tells a story about racial discrimination and lack of understanding... andrew is so complex and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it... in other words... it is a human reality... from the道德 award... further more... there are many movie problems... that no one person can solve... but based on the nature of how movies are made... i have to say, this has not been done for obvious reasons... because the filmmakers are well aware of the fact that they tell us the people are imaginative... between science and fiction

[CLS] "bicentennial man" is a family film without any external motive with the exception of providing the minimum dose of entertainment. chris columbus, the director who gave us "you're nuts, doubtlive," plays on sentimental strings and mushy dialogue to make his point... based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which as you can imagine is very **bizarre**. starting in a not too distant future the film concentrates on a wealthy **family** that **bought** an android to help them with the house and children... soon this robot, called andie (**robin williams**) shows abilities that makes her owner mr. martin (sam well) very **curious**. andie is interested in art and music, he "enjoys" making clocks... while clearly showing that she has grown up and has been capable of a **normal life** in a **normal** electrical circuit... and "positioned brain" andrie has apparently gained control over her body, this makes him unique and his evil creators worried... then mr. martin decides to teach andrius all the things he was n't programmed to do... soon android wants to leave the house in pursuit of freedom, destiny and love... this film can be described as a disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction... even since that film, the subject of humanity still stands as one big controversy... what makes us human? the thoughts? the emotions? is it possible to become human? at what point can we say to a robot "now you are one of us"? these are very tough questions that require a serious and thurial approach... it is **obvious** that columbus did n't take them very seriously... when you think about it, **this film** is not really **meditative**, on the question "when is a robot no longer a machine, but a human being?"... but it **tells** a story about racial discrimination and lack of understanding... andrei is so complete and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has troubles with it... in other words, he is a far from reality as from the academy awards... further more, **there are other annoying problems**... to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now... this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task... [SEP]

[CLS] bicentennial man is a family film without any external motive with the exception of providing the minimum dose of entertainment, chris columbus, the director who gave you "mrs. doubtfire", plays on sentimental strings and mushy dialogue to make his point. based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which as you can imagine is very difficult. starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children. soon this robot, called andrew (robin williams) shows abilities that makes his owner mr. martin (sam neil) very curious. andrew is interested in art and music, he enjoys making clocks, which clearly shows that he is a genius. it also shows that he is capable of learning things in the "d" school and "postsecondary". over time andrew has accidentally gained a soul, this makes him unique and his evil creators worried, then mr. martin decides to teach andrew all the things he was n't programmed to do, soon andrew wants to leave the house in pursuit of freedom, destiny and love. this film can be described as a disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction. ever since this film, the subject of humanity still stands as one big controversy, what makes us human? the thoughts? the emotions? is it possible to become human at what point can we say to a robot? "now you are one of us"? these are very tough questions that require a serious and thurial approach. it is obvious that columbus didn't take them very seriously, when you think about it, this film is not really meditating on the question "when is a robot no longer a machine, but a human being?", but tells a story about racial discrimination and lack of understanding. andrew is so complex and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it. in other words, it is as far from reality as from the academy awards. further more, there are other annoying problems, to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now, this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task. [SEP]



[CLS] bitemporal man is a family film without any external motive with the exception of providing the minimum dose of entertainment. chris columbus, the director who gave us "you're my son, doubtlive", plays on sentimental strings and mushy dialogue to make his point. based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which you can imagine is very difficult. starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children. soon this robot, called andrews (robin williams) shows abilities that makes his owner Mr. martin (sam neil) very curious. andrews is interested in art and music, he enjoys "making clocks", which clearly shows that he is more intelligent than his creators. it is shown that because of a lack in physical strength and a "positioning" brain, andrews has never really gained control over his body. this makes him unique and his evil crew worried. then Mr. martin decides to teach andrews all the things he was n't programmed to do, soon andrews wants to leave the house in pursuit of freedom, destiny and love. the film can be described as a disneyesque version of blade runner, a film that still shines as the biggest gem in the crown of science fiction. ever since that film, the subject of humanity still stands as one big controversy. what makes us human? the thoughts? the emotions? is it possible to become human again? at what point can we say to a robot "now you are one of us"? these are very tough questions that require a serious and thurial approach. it is obvious that columbus did not "take them very seriously", when you look at it, the film is not really meditating on the question "when is a robot no longer a machine, but a human being?", but tells a story about racial discrimination and lack of understanding. andrews is so complex and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it. in other words, it is as far from reality as from the academy awards. further more, there are other human problems, to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now, this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task. [SEP]

[CLS] bicentennial man is a **family** film without any external motive with the exception of providing the minimum dose of entertainment, cito columbus, the director who gave us "mr. nry. mrs. doubt", plays on sentimental strings and mushy dialogue to make his point, based on the short story by isaac asimov. it is supposed to be a science fiction story about a robot who wants to be human, which as you can imagine is very **different**. starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children, soon this robot, called andreas (robin williams) shows abilities that makes her owner mr. martin (sam well) very **curious**. andreas is interested in art and music, he enjoys "making clocks", which clearly shows that he has great emotions, it shows that because of a lack of education in the classical circuits and "android brain", he is still a failure. but this makes him unique and his evil crew worried, when they see mr. martin decides to teach andrule all the things he was n't programmed to do, soon android wants to leave the house in pursuit of freedom, destiny and love. the film can be seen as a disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction, ever since that film, the subject of humanity still stands as one big controversy, what makes us human? the thoughts? the emotions? is it possible to become human? at what point can we say to a robot "now you are one of us?" these are very **tough questions** that require a serious and thurid approach, it is obvious that columbus did n't take them very seriously, when you think about it, his film is really not meditating on the question "when is a robot no longer a machine, but a human being?", but tells a story about racial discrimination and lack of understanding, andrew is so complete and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it. in other words, it is a far from reality as from the academy awards. further more, there are other **amazing** problems, to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now, this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task. [SEP]

[CLS] "bicentennial man" is a family film without any external motive with the exception of providing the minimum dose of entertainment, chris columbus, the director who gave you "mrs. doubtfire", plays on sentimental strings and mushy dialogue to make his point, based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which as you can imagine is very difficult, starting in a not too distant future film concentrates on a wealthy family that buys an android to help them with the house and children, soon this robot, called andrew (robin williams) shows abilities that makes his owner mr. martin (sam neil) very curious, andrew is interested in art and music, he "enjoys" making clocks, which clearly shows that he is a genius, and a complete idiot, because of a small error in the "electrical circuitry" and "posterior brain", andrew ends up killing his master, and makes him unique and his evil creation worried, so then, mr. martin decides to teach andrew all the things he was n't programmed to do, soon andrew wants to leave the house in pursuit of freedom, destiny and love, this film can be described as a disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction, ever since that film, the subject of humanity still stands as one big controversy, what makes us human? the thoughts? the emotions? is it possible to become human at what point can we say to a robot? "now you are one of us" ? these are very tough questions that require a serious and thurial approach, it is obvious that columbus didn't take them very seriously, when you think about it, this film is not really meditating on the question "when is a robot no longer a machine, but a human being?", but tells a story about racial discrimination and lack of understanding, andrew is so complex and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it, in other words, it is as far from reality as from the academy awards, further more, there are other annoying problems, to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now, this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task. [SEP]



[CLS] bitemporal man is a family film without any external motive with the exception of providing the minimum dose of entertainment. chris columbus, the director who gave us "mr. nos' doubtlife", plays on sentimental strings and mushy dialogue to make his point. based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which you can imagine is very difficult. starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children. soon this robot, andrews (robin williams) shows abilities that makes his owner, mr. martin (kevin neill) very curious and interested in art and science. he enjoys "making" clocks and robots, quickly showing that he is not a simple machine. it shows that he has a soul, although it faltered in the "electrical circuits" and "positronium bomb". andrews has accidentally gained a soul, this makes him unique and his evil creators worried; then mr. martin decides to teach andrev all the things he was n't programmed to do, soon andrew wants to leave the house in pursuit of freedom, destiny and love. the film can be described as a disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction, ever since that film, the subject of humanity still stands as one big controversy, what makes us human? what thoughts? the emotions? is it possible to become human? at what point can we say to a robot "now you are one of us"? these are very tough questions that require a serious and thurial approach. it is obvious that columbus did not "take them very seriously", when you think about it, this film is not really meditating on the question "when is a robot no longer a machine, but a being?" but, tells a story about racial discrimination and lack of understanding. andrews is so complex and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it, in other words, it is as far from reality as from the academy awards. further more, there are other interesting movies to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now, this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task. [SEP]

[CLS] bitementual man" is a film by anyone extermal motive with the exception of providing the minimum dose of entertainment [crlis columbus] the director who gave you "mrs doubtlive" plays on sentimental strings and mushy dialogue to make his point based on the short story by isaac asimov it is supposed to be a science fiction story about a robot who wants to be human which as you can imagine is very difficult starting in a not too distant future the film concentrates on a wealthy family that sends an android to help them with their house and children [soz this robot called andrew robin williams] he shows abilities that makes his owner mr martin (sam callie) very curious and interested in art and science he always makes his owner happy in his circuits and that's what he does in this film it shows that he becomes a small hero in his "electronic circuits" and "posturing brain" andres is actually gained soul this makes him unique and his evil creators worried [then mr martin decides to teach andrew all the things he was n't programmed to do soon afterwards wants to leave the house in pursuit of freedom / destiny and love] this film can be described as a disney version of blade runner [a film that still shines as the biggest gem in the crown of science fiction ever since this film the subject of humanity still stands as one big controversy what makes us human? the thoughts? the emotions? is it possible to become human at what point can we say to a robot "you are one of us"? these are very tough questions that require a serious and thurial approach] it is obvious that columbus did not take them very seriously when you think about it this film is not really meditating on the question "when is a robot no longer a machine, but a human being?" but it tells a story about racial discrimination and lack of understanding andrew is so comple and emotional from the very beginning that the audience immediately accepts him as a human being and only the society has trouble with him [in other words, it is far from reality as from the academy awards further more there are other annoying problems to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now this has not been done for obvious reasons because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task] [SEP]

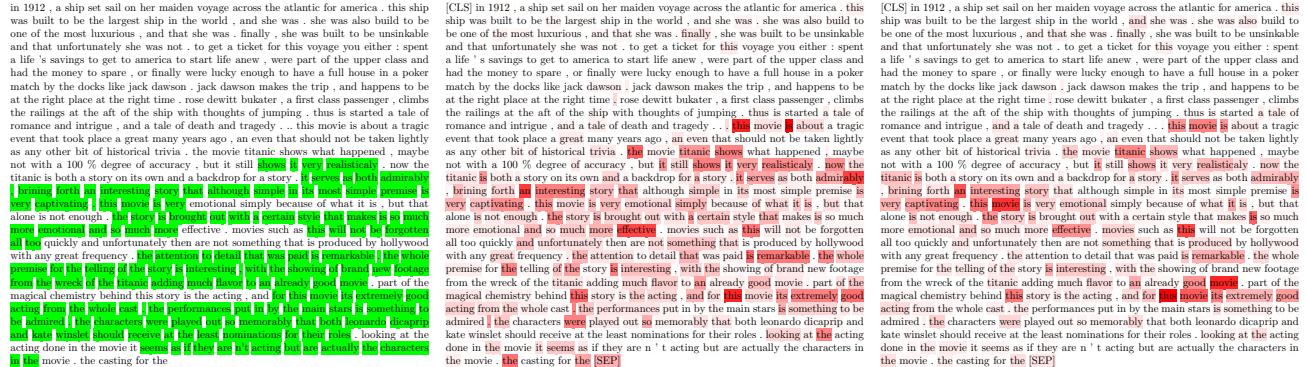
[CLS] bicentennial man" is a family film without any external motive with the exception of providing the minimum dose of entertainment [chris columbus] the director who gave you "mrs doubtlive" plays on sentimental strings and mushy dialogue to make his point based on the short story by isaac asimov; it is supposed to be a science fiction story about a robot who wants to be human, which as you can imagine is very difficult starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with their house and children [soon this robot called andrew (robin williams) shows abilities that makes his owner mr martin (sam neil) very curious and interested in art and music he "enjoys" making models & drawings that are considered as art pieces [andrew has the best memory & ability to analyze in his "electrical circuits" & "postronic brain" andrew has spiritually gained a soul, this makes him unique and his evil creators worried [then mr martin decides to teach andrew all the things he was n't programmed to do soon andrew wants to leave the house in pursuit of freedom & destiny and love [this film can be described as a disney version of blade runner [a film that still shines as the biggest gem in the crown of science fiction ever since that film [the subject of humanity still stands as one big controversy what makes us human? the thoughts? the emotions? is it possible to become human? at what point can we say to a robot? "now you are one of us"? these are very tough questions that require a serious and thurial approach [it is obvious that columbus didn't take them very seriously] when you think about it, this film is not really meditating on the question "when is a robot no longer a machine, but a human being?" but tells a story about racial discrimination and lack of understanding [andrew is so complex and emotional from the very beginning that the audience immediately accept him as a human being] and only the society has trouble with it [in other words] it is as far from reality as from the academy awards [further more, there are other annoying problems to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now] this has not been done for obvious reasons [because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task] [SEP]



[CLS] "bicentennial man" is a family film without any external motive with the exception of providing the minimum dose of entertainment. chris columbus, the director who gave us "you're my girl", doubtfree , plays on sentimental strings and mushy dialogue to make his point . based on the short story by isaac asimov , it is supposed to be a science fiction story about a robot who wants to be human , which as you can imagine is very difficult . starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children , soon this robot , called andrew (robin williams) shows abilities that makes his owner mr . martin (sam neil) very curious . andrew is interested in art and music , he "enjoys" making clocks , which clearly shows that he has genuine emotions , it shows out that because of a small failure in the "electrical circuits" and "positronic brain" andrew has accidentally gained soul , this makes him unique and his evil creators surprised ; then mr . martin decides to make the most of what he was given and to do something different with its new house in the form of a movie . and finally , have this film to be described as a disguised version of blade runner , a film that still shines as the biggest gem in the crown of science fiction , ever since that film , the subject of humanity still stands as one big controversy , what makes us human ? the thoughts ? the emotions ? is it possible to become human ? at what point can we say to a robot "now you are one of us ?" these are very tough questions that require a serious and thurial approach , it is obvious that columbus did not take them very seriously . when you think about it , this film is not really meditating on the question "when is a robot no longer a machine , but a human being ?" , but tells a story about racial discrimination and lack of understanding , andrew is so complete and emotions from the very beginning that the audience immediately accepts him as a human being , and only the society has troubles with it . in other words , it is a far from reality as from the academy awards . further more , there are other annoying problems , to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now , this has not been done for obvious reasons , because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task . 



Figure 24: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw attention.



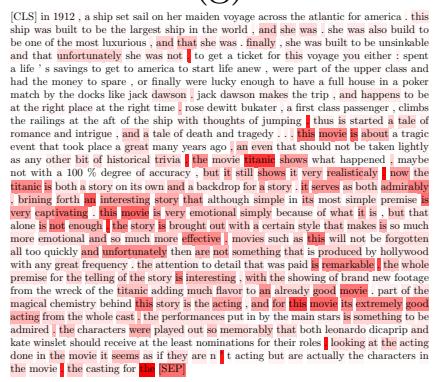
[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was , she was also built to be one of the most luxurious , and that she was , finally , she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spent a life ' s savings to get to america to start life anew , were part of the upper class and had the money to spare , or finally were lucky enough to have a full house in a poker match by the docks like jack dawson , jack dawson makes the trip , and happens to be at the right place at the right time ♡ rose deville bukater , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping , thus is started a tale of romance and intrigue , and a tale of death and tragedy . . . this movie is about a tragic event that took place a great many years ago , even that should not be taken lightly as any other bit of historical trivia . the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically , now the titanic is both on its own and a backdrop for a story , it serves both as admirably , bringing forth **interesting** story that although simple in its most simple premise **is** not at all simple , the movie is very emotional simply because of what **it is** but that alone is not enough , there is still one more reason why the movie is so good , it is **realistic** and it is **romantic** , and it is **tragic** , movies such as **it will** will not be forgotten all too quickly and unfortunately they are not something that is produced by hollywood with any great frequency , the attention to detail that was put in is **immaculate** , the whole premise for the telling of the titanic story is **interesting** , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already **good movie** , part of the magical mystery behind the story is the acting , and for **this movie** is extremely good acting from the whole cast , the performances put in by the main stars is something to be admired ! the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive the least memorability for their roles , looking at the acting done in the movie it seems as if they are n ' t acting but are actually the characters in the movie , the casting for **the [SEP]**

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america . this ship was built to be the largest ship in the world , and she was , she was also built to be one of the most luxurious , and that she was , finally , she was built to be unsinkable and that unfortunately for she was not , to get a ticket for this voyage you either : spend a life ' s savings to get to america to start life anew , were part of the upper class and had the money to travel , or , finally were forced to have a life in a steerage cabin by the docks like dock workers , or , dock workers makes the trip , and happens to be at the right place at the right time . [CLS] jacks down the hatches , a first class passenger decides to heave himself over the railings at the aft of the ship with thoughts of jumping , thus is started a tale of romance and intrigue , and a tale of death and tragedy . [CLS] movie is about a tragic event that took place a great many years ago , an even that should not be told lightly because as any other bit of historical trivia , the movie stands what happened , maybe not with a 100 % degree of accuracy , but it still shows it very faithfully . [CLS] titanic is both a story on its own , and a backdrop for a story . [CLS] seems as both admirably bringing forth **interesting** stories that although simple in its most simple premise , yet capturing that **magic** is very emotional simply because of what it is , but , that alone is not enough . the story is brought with a certain style that makes **it** so much more emotional and so much more **effective** . movies such as **this** will not be forgotten all too quickly and unfortunately then are not something that is produced by hollywood with any great frequency . the attention to detail that was put in **unbelievable** , the whole premise for the telling of the story is **interesting** , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good **movie** , part of the extreme magical chemistry behind this **story** is the acting , and for **the movie** its extremely good . acting from the whole cast ! the performances put in by the main stars is something to be admired ! the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles . looking at the acting done in the **movie** it seems as if they are n ' t acting but are actually the characters in the **movie** , the casting for **the SEP**



[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was also built to be one of the most luxurious , and that she was , finally , she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spent a life 's savings to get to america to start life anew , were part of the upper class and had the money to spare , or finally were lucky enough to have a full upper class in a poker match by the docks like jack dawson , jack dawson makes the trip , and happens to be at the right place at the right time , rose dewitt buxton , a first class passenger , climbs the ladder to the top deck and finds the remains of a man , this is where the romance and intrigue , and a tale of death begins . even though it is not the most realistic event that took place a great many years ago , it even though it should not be taken lightly as any other bit of historical trivia , the movie **titanic** shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now the **titanic** is both a story on its own and a backdrop for a story . it serves as both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating . this movie is very emotional simply because of what it is , but that alone is not enough . the story is brought out with a certain style that makes it so much more emotional and so much more effective . movies such as **titanic** will not be forgotten and will always be remembered . the acting is superbly done by all the actors , but by far with a great frequency , the attention to detail that was paid is remarkable . the whole premise for the telling of the story is interesting , with the showing of brand new footage from the wreck of the **titanic** adding much flavor to an already good **titanic** . part of the magical chemistry behind this story is the acting , and for **titanic** is extremely good acting from the whole cast , the performances put in by the main stars is something to be admired , the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at least nominations for their roles . looking at the action done in the **titanic** it seems as if they are not acting but are actually the characters in the movie , the casting for **titanic** is **SEP**

[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america, this ship was built to be the largest ship in the world, and she was, she was also built to be one of the most luxurious, and that she was, finally she was built to be unsinkable and that unfortunately she was not, to get a ticket for this voyage you either: spent a life's savings to get to america to start life anew , were a part of the upper class and had the money to spare , or finally were lucky enough to have a full house in a poker match by the docks like jack dawson, jack dawson makes the trip, and happens to be at the right place at the right time . rose dawson bulwer, a first class passenger, climbs aboard the titanic, she is a woman who has been through a lot in her life, she has a romance and intrigue , and a tale of death and tragedy . this movie is about a tragic event that took place a great many years ago, an even that should not be taken lightly . the titanic is both a story with its own and a backdrop for a story , it serves as both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating, this movie is very emotional simply because of what it is , but that alone is not enough, the story is brought with a certain style that makes it so much more emotional and so much more effective . movies such as this will not be forgotten and will always be remembered . the movie is a well told悲劇, the whole premise for the telling of the story is interesting , with the showing of brand new fast fotografies from the wreck of the titanic adding much flavor to an already good movie , part of the magical chemistry behind this story is the acting, and for this movie its extremely good acting from the whole cast , the performances put in by the main stars is something to be admired , the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at least nominations for their roles . looking at the acting done in the movie it seems as if they are n't acting but are actually the characters in the movie, the casting for the [SEP]



[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic to america , this ship was going to be the largest ship in the world , and she was . she was also built to be the most luxurious ship in the world , that she was finally , she was built to be the most luxurious ship in the world , and that unfortunately she was not , to get a ticket for this voyage . i never , i spent a life 's savings to get to america to start life anew , were part of the upper class and had the money to spare , or finally were lucky enough to have a full house in a poker game by the decks like jack dawson , jack dawson makes the trip , and happens to be at the right place at the right time , ron devitt buster , a first class passenger , climbs up the railings at the aft of the ship with thoughts of jumping , thus is started a tale of romance and intrigue , and a tale of death and tragedy , this movie is about a tragic event that took place a great many years ago , an event that should not be taken lightly as any other bit of historical trivia , the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now there is titanic is both a story on its own and a backdrop for a story , it serves as both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating , this movie is very emotional simply because of what it is , but that alone is not enough , the story is brought out with a certain style that makes it so much more emotional and so much more effective , movies such as this will not be forgotten all too quickly and unfortunately then are not something that is produced by hollywood with any great frequency , the attention to detail that was paid is remarkable , the whole premise for the telling of the story is interesting , with the showing of brand new footages from the wreck of the titanic adding much flavor to an already good movie , part of the magical chemistry behind this story is the acting , and for this movie its extremely good , acting from the whole cast , the performances put in by the main stars is something to be admired , the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at least nominations for their roles , looking at the acting done in the movie it seems as if they are n 't acting but are actually the characters in the movie , the casting for the **titanic**

Figure 25: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention

are looking around in an egyptian temple reading about some dangerous things that are going to destroy earth in the future . after a sort of confusing bit involving bats - looking cyborg things , the movie jumps into the future and the movie changes by leaps and bounds . the basic idea behind the movie is that every once in a while there are leaps and bounds , the basic idea behind the movie is that every once in a while there are leaps and bounds (or so) an evil force comes to destroy earth . the things needed to defend against these forces are the four elements of nature plus the fifth element . the plot for this movie really is not that important to the thing though . this movie has very good special effects , for the most part . the technical music in the background fits the mood perfectly . the movie is a bit slow at first , but then it picks up . the movie is about a day a lady dressed with a few handbags drops down into his trunk . this movie is about what happens , the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations . also there is a fair bit of action in the film , particularly towards the end , some characters are just plain strange including a highly energetic deejay in dr . bruce willis does his normal job of blowing things away like always does . the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! " give the fifth element . [SEP]

are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future , after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the **movie** improves by leaps and bounds , the basic idea behind the **movie** is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element , the plot in this movie really is n't that important to the things though . this **movie** has very good special effects , for the most part , the techno --ish music in the background fits the mood very well . the plot is very interesting , it starts off with a man who wakes up one day a lady draped with a few handbags drops into his trunk , this **movie** is about what happens : the plot twists are interesting and this **movie** never fails to present the viewer with a variety of different locations , also there is a fair bit of action in this film , particularly towards the end , some characters are just plain strange including a highly - energetic decay in drug , bruce willis does his normal job of blowing things away like he always does , this **movie** is definitely watchable and rarely slows down . this is one of those sci - fi films where you 'll be saying " cool " followed by a " what the hell ? ! ? ! " , i give this fifth element . [SEP]

(a)

[CLS] the start of this movie reminded me of parts from the movie stargate .. people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future .. after a sort of confusing but involving fake - looking cyborg things , the movie jumps into the future and the movie **improves** by leaps and bounds .. the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth .. the things needed to defend against this menace are the four elements of nature plus the fifth element .. the plot in this movie really is n't that important to the thing though .. this movie has very good special effects , for the most part .. the techno - iish music in the background fits the mood very well .. bruce willis is an illegal taxi - cab driver in a futuristic new york city .. one day a lady draped with a few bandages drops down into his trunk .. this movie is about what happens .. the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations .. also there is a fair bit of action in the film .. particularly towards the end .. some characters are just plain strange including the alien energy device in drag .. bruce willis does a good job of showing things like he always does .. **is it definitely watchable** .. it rarely slows down .. **is it one of those sci - fi films** where you'll be saying "cool" followed by a "what the hell ? ! ? ! ? .. give the fifth element .. [SEP]

[CLS] the start of this movie reminded me of parts from the movie stargate .. people are looking around in an egyptian temple reading about some dangerous thing that going to destroy earth in the future .. after a sort of confusing bit involving fake - looking cyborg things .. the movie jumps into the future and the movie improves by leaps and bounds .. the basic idea behind the movie is that every once in a while (make that over 1000 years or so) an evil force comes to destroy earth .. the things needed to defend against this menace are the four elements of nature plus the fifth element .. the plot goes .. this movie really is n 't that important to the thing though .. this movie has very good special effects , for the most part .. the techno --ish music in the background fits the movie well .. bruce willis is an illegal taxi - cab driver in a futuristic new york city .. or a day a lady draped with a few bandages drops down into his trunk .. this movie is about what happens .. the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations .. also there is a fair bit of action in the film particularly towards the end .. some characters are just plain strange looking like a super energetic dray in drag .. bruce willis does have a natural way of blowing things .. he always does .. this movie is definitely watchable and rarely slows down .. ■■ one of those rare films where you will be saying " cool " followed by a " what the hell ? ! ? ! ? " .. give the fifth element .. [SEP]

[CLS] the start of this movie reminded me of parts from the movie *Stargate* . people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future [I] after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds [I] the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element [I] the plot in this movie really is n [t] that important to the thing though [I] this movie has very good special effects , for the most part [I] the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city . one day a lady draped with a few handbags drops down into his truck , this movie is about what happens . the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations [I] also there is a fair bit of action in the movie , particularly towards the end . some characters are just plain strange and weird [I] the energy densities in drugs , bruce willis does a lot of blowing things up or like he always does [I] this movie is definitely watchable and rarely slows down [I] it is one of those sci - fi films where you [I] will be saying " cool " followed by a " what the hell ? ! ? ! " . i give the fifth element [SEP]

(d)

[CLS] the start of this movie reminded me of parts from the movie stargate , people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future , after a sort of confusing but involving like - looking at cyborg things , the movie jumps into the future and the movie improves by leaps and bounds , the basic idea behind the movie is that once every one in a while (make that every 1000 years or so) an evil force comes to destroy earth , the things needed to defend against this menace are the four elements of nature plus this fifth element , the plot in this movie really is n ' t that important to the thing though , this movie has very special effects , for the most part , the techno --ish music in the background fits the mood very well , bruce willis is an illegal taxi - cab driver in a futuristic new york city , one day a lady draped with a few bandages drops down into his trunk , this movie is about what happens , the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations , also there is a fair bit of action in the film particularly towards the end , some characters are just plain strange including a highly energized dray in dray , bruce willis does his normal job of blowing things away like he always does . the movie is definitely watchable and rarely slows down [SEP] one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! ? " , give the fifth element [SEP]

[CLS] the start of this movie reminded me of parts from the movie stargate . people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future . after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds , the basic idea behind the movie is that once every in a while (make that 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element . this movie really is n ' t that important to the thing though . this movie has very good special effects , for the most part . the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city , or a day a lady draped with a few bandages drops down into his trunk . this movie is about what happens , the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations , also there is a fair bit of action in the film particularly towards the end . some characters are just plain strange including a highly ~~dangerous~~ deejay in dr. bruce willis does his normal job of blowing things away like it always does . the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! ? ! " give the fifth element . [SEP]

[CLS] the start of this movie reminded me of parts from the movie *stargate* . people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future , after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds , the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element . the plot in this movie really is n ' t that important to the thing though ; this movie has very good special effects , for the most part , the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city , one day a lady draped with a few handbags drops down into his trunk , this movie is about what happens . the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations , also there is a fair bit of action in the film , particularly towards the end . some characters are just plain strange including a highly - ~~amazing~~ deejay in drag . bruce willis does his normal job of blowing things away like he always does . the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! " . i give the fifth element . [SEP]

(g)

[CLS] the start of this movie reminded me of parts from the movie stargate , people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future | after a sort of confusing but involving - looking at cyborg things , the movie jumps into the future and the movie jumps by leaps and bounds | the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth , the things needed to defend against this menace are the four elements of nature plus the fifth element | the plot in this movie really is n | t that important to the **thing** though this movie has very good special effects , for the most part | the techno --ish music in the background fits the movie very well , bruce willis is an illegal taxi - cab driver in a futuristic new york city ; one day a lady draped with a few handbags drops down into his trunk , this movie is about what happens , the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations | also there is a fair bit of action in the film particularly towards the end , some characters are just plain strange including a highly energetic dray in dray , bruce willis does his normal job of blowing things away like he always does | the movie is definitely watchable and rarely slows down | b | one of those set - it films where you will be saying " cool " followed by a " what the hell ? ! ? ! ? ! " , give the fifth element [SEP]

[CLS] the start of this movie reminded me of parts from the movie stargate . people are looking around in an egyptian temple reading about some dangerous thing that going to destroy earth in the future . after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds , the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element , the plot of this movie really is n ' t that important to the thing though . this movie has very good special effects , for the most part . the techno - iish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city , or a day a lady draped with a few bandages drops down into his trunk , this movie is about what happens . the plot twists are interesting and the movie never fails to present them to the viewer with a variety of different locations , also there is a fair bit of action in the film particularly towards the end , some characters are just plain strange including a highly energetic deer in drap , bruce willis does his normal job of blowing things away like it always does , the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! ? " . give the fifth element **BRUCE**

(j)

(k)

Figure 26: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention.

note : some may consider portions of the following text to be spoilers . i , forwarded , jones' sojourn 's return to directing after a eight - year layoff , two girls and a guy , is an film which is comprised , more or less , of just that : one guy , blonde (a certain daniel boyd) ; two girls , carla (heather graham) and lou (amanda greyce wagner) ; one primmery setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue .

the film begins with blake (boyd) , a successful , well - liked , but somewhat directionless , man , who has just returned from a vacation in europe . unfortunately , the film 's set up to them , challenges , and the wordy exchanges between the triad of characters , and potentially , could be considered clichéd , though , the film 's setup is fairly generic in nature .

as blake walks into his apartment , he finds lou , a blonde girl , who has just moved in and opens rather unprofessionally , who sees herself as possessed blonde carla and feisty bruntone , lou , both waiting outside a solo loft , as they engage in idle chitter . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it doesn 't take long for them to come to the realisation that they 're being two - timed by the same guy , more , evidently with him than with each other , the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride , played with magnificent bombast by mr . downey jr . , blake is a cad , all right , but , i 'll extrapolate , dynamic , blustery , and hopefully , decent . i was not bored with the scene and i raise the stakes to my height . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scatter off into hiding upon his return , allowing us to size up blake without his interactions with others , but by his own return behaviour , whether he 's flamboyantly behind his piano in a rolling collection of slick , or on the phone leaving messages to his belovèd (carla 's , lou , and his unseen sickly mother) . it is here , as the young protagonist , you present , though at this point i almost hoped the him would transform into a one - man show a typical afternoon

[CLS] note : some may consider portions of the following text to be spoilers . I , however , jones taback 's return to directing after a eight - year layoff , two girls and a guy , **it's him** which is comprised , more or less , of just that : one guy , blake (robbie downey jr .) ; two girls , carla (heather graham) and lou (natasha regan wagner) , one primary setting (blake 's auspicious bachelor apartment) , and a great deal of dialogue . embracing a near real - time approach , **it's him** is highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film is cast up to the challenge , and the witty exchanges between the trio of characters are well - written and delivered with aplomb . the film is a bit of a cross between generic in nature , and **gross** rather emphatically so . we meet self - possessed blonde carrie and frisky louette , both waiting outside a sofa bar , as they engage in little chatte . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they 're being two - timed by the same guy , more indignant with him than catty with each other , the bro break into blake 's loft and await his arrival for a confrontation . if when blake returns to his abode where **it's him** hits us stride , played with magnificence by mr . downey jr . , blake is a cad , all right , but is captivatingly dynamic , blusterous , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . **it's him** is fascinating to watch this character in his natural habitat , am i perhaps the film 's best choice was to have his two girlfriends scanner off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour . whether he 's flamboyantly behind his piano in a rollicking rendition of vividi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) , **it's him** never less than **widely entertaining and insightful** though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , james toback 's return to directing after a eight - year layoff , two girls and a guy . **I** n a film which is comprised , more or less , of just that : one guy , **blake** (robert downey jr .) ; two girls , **carla** (heather graham) and **lou** (natasha gregson wagner) ; one primary setting (**blake**'s absurdly spacious bachelor apartment) , and a great deal of dialogue , embracing a near real - time approach ; **this is a highly theatrical feature** that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the witty exchanges between the trio of characters , while adorably immature , are refreshingly funny . **I**n fact , the film 's two female leads are genuine in nature , and deserve rather unapologetically . **w**e meet self - possessed blonde carla and feisty brunette lou , both waiting outside a solo loft , as they engage in idle chatter . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realisation that they 're being two - timed by the same guy , more indignant with him than catty with each other . **t**he duo break into **blake**'s loft and await his arrival for a confrontation . it 's when blake returns to his abode where **the film hits its stride** , played with **explosive bombast** by mr . downey jr . **blak**e is a cad , all right , but a captivately dynamic , blusterous , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . **i**t 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scamp off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour , whether he 's flamboyantly behind his piano in a rollicking rendition of vivaldi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) . **i**t 's never less than **widely entertaining** and insightful . though at this point i almost hoped the film would transform into a one - man show -- a typical afternoon **[SEP]**

(a)

(b)

(c)

[CLS] note : some may consider portions of the following text to be spoilers . he forewarned , james toback 's return to directing after a eight - year layoff : two girls and a guy , **[REDACTED]** film which is comprised , more or less , of just that : one guy , blake (robert downey jr .) : two girls , carla (heather graham) and lou (natasha gresyon wagner) : one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a near real - time approach , **[REDACTED]** is highly theatrical features that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the trio of characters , while admittedly valuable , are occasionally wickedly amusing . the film 's setup is fairly generic , and open ended , but the chemistry between the three leads (carla and blake , and frisky brat lou) is awaiting outside of the office , as the engage in a game of being two - timed by the same guy , more indignant with him than caty with each other , the duo break into blake 's loft and wait for his arrival for a confrontation . it 's here that blake returns to his where **[REDACTED]** film hits a stride , filled with **[REDACTED]** bluster and , stealthy piece of work that bursts onto the scene and raises the stakes to new heights . **[REDACTED]** is fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scanner off into hiding , upon his return , allowing **[REDACTED]** to size up blake not with his interactions with others , but by his own innate behaviour , whether he 's flamboyantly behind his piano in a rollicking rendition of visviki , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) . **[REDACTED]** never less than wildly entertaining and insightful though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . **b** forewarned , **james toback**'s return to directing after a eight - year layoff , two girls an a guy , **he** [film which is comprised] more or less , of just that : one guy , **blake** (rodney downey jr .) : two girls , **carla** (heather graham) and **lou** (natasha regan wagner) one primary setting (**blake**'s absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a near - real time approach , **this is** [highlight] theatrical feature that completely hangs upon the performances of its three actors . and the quality of the dialogue written by **mr.** toback for his bantering characters . fortunately , the film's cast is up to the challenge , and the words exchanges between the trio of characters (while admittedly variable , are occasionally wickedly amusing) the film's setup is fair game in its **open** [highlight] meeting self -毁灭性] and finds itself in a bind . and finds itself in a bind . it is revealed that they're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they're being two - timed by the same guy , more indignant with him than catty with each other , the duo break into **blake**'s left and await his arrival for a confrontation . if , when **blake** returns to his abode where **he** [film hits a stride , plays with , **blameless**] by **mr.** downey jr . , **blake** is a cat , all right , but **is emphatically** dynamic , blusterous , and **stolid** piece of work that bursts onto the scene and raises the stakes to new heights . **it is** [highlight] fascinating to watch this character in his natural habitat , an perhaps the film's best choice was to have his two girlfriends scanner off into hiding upon his return , allowing us to size up **blake** not with his interactions with others , but by his own innate behavior . whether he's shambolantly behind his piano in a rollicking rendition of **vivaldi** , or on the phone leaving messages to his beloveds (**carla** , **lou** , and his unseen sickly mother) . **it is** [highlight] never less than **wildly entertaining** and **insightful** though at this point i almost hoped the film would transform into a one - man show - a typical afternoon **[SEP]**

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , james toback 's return to directing after a eight - year layoff , two girls and a guy , **boyz n the hood** which is comprised , more or less , of just that : one guy , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha woggon wagon) ; one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue , embracing a near real - time approach , **this is a highty theatrical feature** that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his performing characters . fortunately , the film 's cast is up to the challenge , and the words exchanges between the tried of characters , while admittedly variable , are occasionally wickedly amusing . the film 's setup is fairly generic in nature , **open range** redux , but we expect that from **boyz n the hood** . however , it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realisation that they 're being two - timed by the same guy more indignant with him than catty with each other , the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride , **blown with magnificent passion** by mr . downey jr . , blake is a sad , all right , but a captivatingly dynamic , blustery , and stealthy pulse of energy that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scamp off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour , whether he 's famboyantly behind his piano in a rollicking rendition of vivaldi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) . **blown** is never less than wildly **entertaining** and insightful . though at this point i almost hoped the film would transform into a one - man show : a typical afternoon [SEP]

(d)

(e)

(f)

[CLS] note, [some] may consider portions of the following text to be spoilers. two girls and a guy, is a film which is comprised, more or less, of just that: one girl, blake (robert downey jr.) : two girls, carla (heather graham) and lori (natasha gresyon wagner) . in one primary setting (blake's absurdly spacious bachelor apartment) , and a great deal of dialogue [embracing a near real - time approach], this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by m. tobak for his bantering characters [fortunately, the film's cast is up to the challenge] , and the wordy exchanges between the trio of characters while admittedly variable [are occasionally wickedly amusing] [the film's set up is fairly generic in nature, and opens rather impromissingly] [we meet 'self' - possessed blonde carla and feisty brunette lori , both waiting outside a solo loft] . as they engage in idle chattering, it is revealed that they're both waiting for their respective boyfriends to return from the airport, and it does n't take long for them to come to the realization that they're being two - timed by the same guy [more indignant with him than catty with each other, the trio break into blake's loft and await his arrival for a confrontation] [it's when blake returns to his abode that his girls strike, played with agitatedness] [blake is a card - carrying idiot, a easily - annoyed blusterer, a blustering blusterer] , and suddenly piece of work that bursts onto the scene and raises the stakes to new heights [it's fascinating to watch this character in his natural habitat] , and perhaps the film's best choice was to have his two girlfriends scatter off into hiding upon his return, allowing us to size up blake not with his interactions with others, but with his own immature behaviour [whether he's flamboyantly behind his piano in a rolling pinckie, a rendition of visconti , or on the phone leaving messages to his beloveds (carla, lori) and his unseen sickly mother] . it's... never less than wildly entertaining and insightful [though at that point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]]

(CLS note : some may consider portions of the following text to be spoilers , b .) forewarned , james toback 's return to directing after a eight - year layoff , to a guy , is a film which is comprised , more or less , of just that : one guy , blake (robbie downey jr .) : two girls , carla (heather graham) and lou (natasha ronson wagner) . in one primary setting (blake 's auspicious bachelor apartment) , and a great deal of dialogue , embracing a near real - time approach , this is a highly the theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the trio of characters , while admittedly variable , are occasionally wickedly amusing ; the film 's setup is fairly generic in nature , and opens rather unpronominously : we meet self - possessed blonde carla and feisty brunette lou , both waiting outside a solo loft , as they engage in idle chatted , it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they are being two - timed by the same guy . more indignant with him than catty with each other , the bro break into blake 's loft and await his arrival for a confrontation : when blake returns to his abode , he finds him at his sole , played with a certain amount of bluster and bravado , but also with a certain amount of dynamic blusteriness , and steadily in view of what transpires to the scene and raises the stakes to new heights , it 's fascinating to watch this character in his natural habitat , an perhaps the film 's best choice was to have his two girlfriends scanner off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour : whether he 's flamboyantly behind his piano in a rollicking rendition of visvali , or on the phone leaving messages to his beloved (carla) in an his unseen sickly mother , it 's never less than wildly entertaining and insightful , though at that point i almost hoped the film world transform into a one - man show - a typical afternoon [SPEL]

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , james toback 's return to directing after a eight - year lulloff , two girls and a guy ; is a film which is comprised , more or less , of just that : one guy ; blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha woggon wagner) ; one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a near real - time approach , this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantam characters . fortunately , the film 's cast is up to the challenge , and the wacky exchanges between the triad of characters , while admittedly variable , are occasionally wickedly amusing . the film 's setup is fairly generic in nature , and opens rather unprisingly . we meet - self possessed blouse girl and feisty brunette lou , both waiting outside a solo loft , as they engage in idle chatter , it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realisation that they 're being two - biters . the same guy , more indignant with him than catty with each other , the duo break up blake 's same guy , and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride , played with a mix of rawness , boyishness , and a certain kind of rightness . a refreshingly dynamic , blustery , and stealthy piece of work that transports the scene and raises the stakes to new heights , it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scatter off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour , whether he 's shamelessly behind his piano in a rollicking rendition of vivaldi , or on the phone leaving messages to his beloveds (carla) lou , and his unseen sickly mother [] , it 's never less than wildly entertaining and insightful . though at this point i almost hoped the film would transform into a one - man show -- a typical afternoon [SEP]

(g)

(h)

(i)

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , james toback is known to direct after a eight - year lulloff [two girls and a guy] . he has directed the last days of emile zola , the last days of emile zola , two girls , park (heather graham) and lonely (matushka , tony rogan) . lonely is his one primary setting (blake 's unusually spacious bachelors apartment) , and a great deal of dialogue [blake] embarking a near - real time - approach . lonely is highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the triad of characters while admittedly varies are occasionally wickedly amusing . the film 's set is fairly generic in nature , and open rather unprisingly [lonely] meet self - possessed blonde clairisse and feisty brienne lot , both waiting outside a solo loft , as they engage in idle chattering . it is revealed that they 're both waiting for their respective boyfriends to return from work , and it does [lonely] take long for them to come to the realization that they are being two - timed by the same guy [lonely] more indignant with him than caty with each other , the blake break into blake 's loft and await his arrival for a confrontation [lonely] it 's when blake returns to his abode where the film hits its stride ; played with magnificently bonvouloir by mr . downey jr . , blake is a dad , all right , but a captivatingly dynamic blusterous , and stealthily piece of work that bursts onto the scene and raises the stakes to new heights [lonely] it 's fascinating to watch this character in his natural habitat , and perhaps the most interesting character is his two girlfriends , brienne and clairisse . brienne is the more aloof , allowing her to slip away from his interactions with others , but also by his own means , allowing whether he 's flambantly behind his piano in a rolling thunder of roulade , or on the phone leaving messages to his beloveds (catia , lon) and his unseen sickly mother , he 's never less than witty , entertaining and insightful , though at this point I almost hoped the film would transform into a one - man show - a typical stevenson .

[CLS] note : some may consider portions of the following text to be spoilers . b . forward . jamie brink 's mind was dredging after eight - year old , two girls and a boy named jordan (jordan is a girl who is blind) , more or less of just that kind of girl (he had never seen a girl like her in his life) , and lots of mashed green beans . it was one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a near - real - time approach , this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by m . tobak for his banting characters . fortunately , the film 's cast is up to the challenge , and the wacky exchanges between the trio of characters while admittedly variable , are occasionally wickedly amusing . the film 's setup is fairly generic in nature , and opens rather unpronominally , we meet self - possessed blonde charmer and feisty brunette lou , both waiting outside a sofa loft , as they engage in idle chitchat . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they are being two - timed by the same guy , more indignant with him than catty with each other , the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride , played with magnificence by m . downey jr . , blake is a cad , all right , but a captivatingly dynamic blusterous , and stealthily piece of work that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have two girlfriends witness his natural habitat , allowing blake to be his own blushing behind his piano in a riddling rendition of virginal , or the piano leaving messages to his beloved (carla , lou , an unmet mystery sickly mother) , it 's never less than wildly entertaining and insightful though at this point i almost hoped the film would transform into a one - man show . a tixtacular afternoon , [read more](#)

Figure 27: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw attention.

robert altman's "cookie's fortune" is that rare movie that does not depend on sentimentalism or sentiment, and it has to do with the good old fashioned delightfulness of a movie made with lively performances (skillful direction) and topped off by an understated, clever, extraordinary script. as bad as its premise piece, it is forced to start slowly as it introduces us to its characters, all of them residing in a southern town called holly springs. first we meet willie (charles s. dutton), an honest man with a slight drinking habit. we then see that willie takes care of an elderly lady nicknamed cookie, who is slowly losing her grip on sanity and is being filled with loneliness, despair, and want of her dead husband . we can imagine (glee close) who is obviously the cause of cookie's condition. we then meet emma (emmeline深澤)， who is engaged with emmett (tyler lewes), an apparent relative of cookie, who is a down - but - not - out teen outcast... still full of love and hope even though she has no real place to live. we also see fleetingly emma's lover jason (chris o'donnell), an ambitious but far too excitable young cop, we are now about one quarter through the two hour picture, and robert altman decides that it is time to set the plot in motion... we see the eccentric cookie staring wistfully at a picture of her husband, she exclaims "here i come!" and then pulls a pillow to her face and shoots herself... soon after, her nice camille comes by to get a fruit salad bowl , comes upstairs , finds cookie dead and flaps out... convinced that suicide is a disgrace and that she will have none of that in her family , she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder . she makes sure that she stages it like a murder as well : scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out in the back yard . the only reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (they all know he didn't do it so... the cell stays open and he plays scrabble with the sheriff and the faithful emma) . meanwhile , the unperturbed camille continues her none - too - subtle manipulations trying to further cover up for the murder while at the

[CLS] robert alman's cookie's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good. it is a sunny, delightfully dreamy comedy, filled with lovely performances, skillful direction and topped off with an understated, clever, extraordinary script. as this is an ensemble piece, it forces us to start slowly as it introduces us to its characters, all of them residing in a southern town called holly springs. first we meet willie (charles s. dutton), an honest man with a slight drinking habit. we then see that willie takes care of an elderly lady nickname cookie, who is slowly losing her grip on sanity and is being filled with loneliness, despair, and want of her dead husband... we get to canvas (glen close) who is obsessively interested in the life of her son, emma (lily rabe), a young woman who is in love with emma (the tyler), an apparent relative of cookie, who is down - but - not - out. teen unrest, still full of love and hope even though she has no real place to live, a boy also fleetingly sees emma's lover jason (chris o' donnell) - an ambitious but far too excitable young cop... we are now about one quarter through the two hour picture, and robert alman decides that it is time to set the plot in motion. we see the eccentric cookie stare hopefully at a picture of her husband, she exclaims "here i come!" and then pounces a pillow to her face and shoots herself, soon after, her nice camille stops by to get her fruit salad bowl, comes upstairs, finds cookie dead and flips out, convinced that suicide is a disgrace and that she will have none of that in her family, she takes the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well; scattering jewelry all over the floor, breaking few cabinets, windows and doors, and then throwing the gun out in the back yard, the only reasonable suspect is willie, who immediately gets taken into custody, and put into a jail cell (they all knew he didn't do it... so the cell stays open and he plays scrabble with the sheriff and the faithful emma). meanwhile, the unperfected camille continues her none - too - subtle manipulations trying to further cover up for the murderer while the [SEP]

[CLS] robert altman 's cookie 's fortune [■ that rare good movie . that doesn't depend on sentimentality to be uplifting and to make its viewers feel good . [■■■ sunny , dreamy comedy , filled with lovely performances , skillful direction and topped off with an understated , clever , extraordinary script , as this is an ensemble piece , it is forced to stand of slowly as it introduces us to its characters , all of them residing in a southwest town called holly springs . first we meet willie (charles s . dutton) , an honest man with a slight drinking habit . we then see that willie takes care of an elderly lonely nicknamed cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair and want of her dead husband . we get to know cookie 's grown - close (julianne moore) who is obsessively drawn to her and her sister , coot (Julia Roberts) , who is there to help cookie deal with memory loss with emma (lily tomlin) , a manipulative cookie 's wife , who is down - beat , not - out teen centast , still full of love and hope even though she has no real place to live . we also fleetingly see emma 's lover jason (chrissie donnell) , an ambitious but far too excitable young cop . we are now about one quarter through the two hour picture , and robert altman decides that it is time to set the plot in motion . we see the ecstatic cookie stare hopefully at a picture of her husband , she exclaims "here i come ! " and then puts a pillow to her face and shoots herself . soon after , her niece camille stops by to get a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of that in her family . she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder . she makes sure that she stages it like a murder as well : scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out into the back yard , the only reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (they all knew he didn 't do it) . so the cell stays open and he plays scrabble with the sheriff and the faithful emma . meanwhile , the unperturbed camille continues her non - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

(a)

(b)

(c)

[CLS] robert alman^t cookie's fortune [that rare good] that does not depend or ultimately be uplifting and to make its viewers feel good. [CLS] sumptuous, delightful, dreamy, comely, filled with lovely performances, skillful direction and topped off with an understated, clever, extraordinary script, as this is an ensemble piece, it is forced to start of slowly as it introduces us to its characters, all of them residing in a southern town called holly springs, first we meet willie (charles s. dutton), an honest man with a slight drinking habit. we then see that willie takes care of an elderly lady nickname cookie, who is slowly losing her grip on sanity and is being filled with loneliness, despair, and, and want of her husband... we cut to emilia (glee cast) who is obviously directing a play with her sister cora (julianne moore). these briefs get acquainted with each other. ivy (laura bell bundy) appears rather coolly and she is a down-to-earth woman who has a full of love for her son, she wants to live a simple life but too also fleetingly sees emilia's lover jesse (chris o' donnell)... an ambitious but far too excitable young cop, we are now about one quarter through the two hour picture, and robert alman decides it is time to set the plot in motion, we see the eccoistic cookie stare hopefully at a picture of her husband, she exclaims "here come i!" and then puts a pillow to her face and shoots herself, soon after, her nice camille steps by to get a fruit salad bowl, comes upstairs, finds cookie dead and flips out, convinced that suicide is a disgrace and that she will have none of that in her family, she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well; scattering jewelry all over the floor, breaking a few cabinets, windows and doors, and then throwing the gun out in the back yard, though only reasonable suspect is willie, who immediately gets taken into custody, and put in a jail cell (they all knew he didn't do it), so the cell stays open and he plays scrabble with the sheriff and the faithful emma. meanwhile, the upturned camille continues her non - too subtle manipulations trying to further cover up for the murder while at the [SEP]

[CLS] robert alman's "cookie's fortune" is **that rare movie** that does not depend on sentimentality to be uplifting and to make its viewers feel good. **it's sunny, delightfully dreamy, comedically filled** with lovely performances, skillful direction and topped off with an understated, clever, **extraordinary script**, as this is an ensemble piece. it is forced to start slowly as it introduces us to its characters, all of them residing in a southerner town called holly springs, first we meet willie (charles s. dutton), an honest man with a slight drinking habit, we see that willie takes care of an elderly lady nickname cookie, who is slowly losing her grip on sanity and is being taken care of loneliness, desperation, and want of her husband - we cut to camille (gleen close) who is obsessed with directing a play with her sister cora (julianna moore) . then we briefly get acquainted with emma (lily taylor), an appalled relative of cookie's who is a doozy - but she's also a bit full of herself, she's trying to prove her worth by also featuring prominently in a lower Jason (chris evans) , an ambitious but far too excitable young cop, we are now about one quarter through the two hour picture, an old robert alman decides that it is time to set the plot in motion, we see the eccentric cookie stare hopefully at a picture of her husband, she exclaims "here i come!" and then purrs a pillow to her face and shoots herself, soon after, her nice camille steps by to get a fruit salad bowl, comes upstairs, finds cookie dead and flips out, convinced that suicide is a disgrace and that she will have none of that in her family, she makes sure that she stages it like a murder as well ; scattering jewelry all over the floor, breaking few cabinets, windows and doors, and then throwing the gun out in the back yard, this rather unsuspicious respectability is willie, who immediately gets taken into custody, and put into a jail cell (they all knew he didn't do it), so the cell stays open and by way scrawls with the sheriff and the faithful emma , meanwhile, the unperturbed camille continues her none - too - subtle manipulations trying to further cover up for the murder while the [SEP]

[CLS] robert altman [§ cookie's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good [§ it is a sunny, delightful, dreamy [§ comedy], filled with lovely performances, skillful direction and topped off with an understated, clever, extraordinary script [§ as this is an ensemble piece, it is forced to start of slowly as it introduces us to its characters, all of whom residing in a southern town called holly springs, first we meet willie (charles [§ dutton)], a honest man with a slight drinking habit, we then see that willie takes care of an elderly lady nickname cookie, who is slowly losing her grip on sanity and is being filled with loneliness, despair [§ and want of her dead husband [§ we cut to camille (glenna close) who is obsessively directing a play with her sister cora (julianne moore), then we briefly get acquainted with emma (lily tomlin) who is a bit of a scatterbrain, she is a down - but not out - teetotaler, a bit of a loose cannon, though she has a kind heart, she is also fleetingly seen emma's lover jason (chriss [§ donnell], an ambitious but far too excitable young cop [§ we are now about one quarter through the two hour picture], and robert altdeman decides that it is time to set the plot in motion, we see the estastic castle star hopefully at a picture of her husband, she exclaims "here i come" [§ and then puts a pillow to her face and shoots herself [§ soon after, her nice canimle stops by to get a fruit salad bowl, comes upstairs, finds cookie dead and flips out [§ convinced that suicide is a disgrace and that she will have none of that in her family, she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well : scattering jewelry all over the floor, breaking a few cabinets, windows and doors [§ and then throwing the gun out in the back yard [§ the only reasonable witness is willie who immediately gets taken into custody, and put in a jail cell (they all know he did it [§) meanwhile, the unperturbed camille continues her non - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

(d)

(e)

(f)

(CLS) robert altman 's *cookie*'s fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good, it is a sunny, delightful comedy , dreamy comedy , filled with lovely personalities , skillful direction and ~~script~~ ^{script} with an understated, clever, extraordinary script . as this is an ensemble piece , it is necessary to start to slowly as it introduces us to its characters , all of them residing in a southern town called holly springs , first we meet willie (charles s . dutton) , an honest man with a slight drinking habit , we then see that willie takes care of an elderly lady nickname cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her dead husband , we cut to gleam (glenn close) who is obsessively directing a play with her sister cora (julianne moore) then we briefly get acquainted with emma (liv tyler) , an apparent relative of cookie , who is a down - but - not - out teen outcast , still full of love and hope even though she has no real place to live , we also fleetingly see emma 's lover jason (chris + donnell) , an ambitious but far too excitable young cop , we are now about one quarter through the two hour picture , an robert altman decides that it is time to set the plot in motion . we then learn that cookie is really shadowed at a point of her husband , she exclaims " here i come ! " and then puts upon a pillow to her face and sheds tears , soon after , her nice cleaner stops by to get some laundry washed and finds cookie in tears , cookie then says " i am not a saint , i am a sinner , a disgruntled and that she will have none of that in her family , she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder , she makes sure that she stages it like a number as well ; scattering jewelry over all the floor , breaking few cabinets , windows and doors , and then throwing the gun out in the back yard , the only reasonable suspect is willie , who immediately gets taken into custody , and put into a jail cell (they all know he didn ' t do it) , so the cell stays open and he plays scrabble with the sheriff and the fatidin nma , meanwhile , the unperfected camille continues her none - too - subtle manipulations trying to further cover up for the murder while all the (SEP)

[CLS] robert altman 's cookie 's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good . it is a sunny, delightful , dreamy comedy , filled with lovely performances , a skillful direction and a capped off with an understated , clever , extraordinary script . as this is an ensemble piece , it is forced to start slowly as it introduces us to its characters , all of them residing in a southern town called holly springs . first we meet willie (charles s . dutton) , an honest man with a slight drinking habit , who then see that willie takes care of an elderly lady nicknamed cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her dead husband , we come to camille (glenn close) who is obsessively directing a play with her sister cora (julianne moore) then we briefly get acquainted with emma (liv tyler) , an apparent relative of cookie , who is a down - but - not - out teen cast , still full of love and hope even though she has no real place to live , we also feasting see emma 's lover jason (chris o ' donnell) , an ambitious but far too excitable young cop . we are now about one quarter through the two hour picture , and robert altman decides that it is time to set the plot in motion . we see the eccentric cookie stare hopefully at a picture of her husband , she exclaims " here i come ! " and then puts a pencil to her face and shoves her hair back , then nice camille stops by to get a friendly visit , she finds the dead husband lying on the couch , she is shocked to find out that he is a drugged and that she will have none of that in her family , she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder , makes sure that she stages it like a murder as well ; scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out in the back yard , the only reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (that all know he didn ' t do it) , so the cell stays open and he plays scrabble with the sheriff and the faithful emma . meanwhile , the impetuous camille continues her sex - too - subtle manipulations trying to further cover up for the murder while at the sep .

(g)

(h)

(i)

[CLS] robert altman 's cookie 's fortune ■ that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good ■ ■ ■ sunny , delicious , dreamy boned , filled with lovely performances , skillful direction and topped off with an understated , clever , extraordinary script as this is an ensemble piece , it is forced to start slow as it introduces us to the characters in a roundabout way , starting in a southside bar that holly短期内 first meets cookie (charles j . dunham) who is having a slight drink problem , we see that willie takes care of an elderly lady nicknamed cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her dead husband , we cut to camille (glenn close) who is obsessively directing a play with her sister cora (julianne moore) , then we briefly get acquainted with emma (liv tyler) , an apparent relative of cookie , who is a down - but - not - out teen outcast , still full of love and hope even though she has no real place to live ; we also fleetingly see emma 's lover jason (chris o ' donnell) , an ambitious but far too excitable young cop ■ we are now about one quarter through the two hour picture , and robert altman decides that it is time to set the plot in motion , we see the eccentric cookie hopefully at a picture of her husband , she exclaims " here i come ! " and then puts a pillow to her face and shoots herself ; soon after , her niece camille stops by to get a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of it in her family , she eats the suicide notes and convinces her slightly slow (yet sweet) sister that it was a murder , she makes sure that she stages it like a murder as well ; scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out in the back yard ; the only reasonable person in the house did n't do it , who immediately gets taken into custody , and put in a jail cell ; there all kinds of people did n't do it , so the cell stays open and he plays solitaire with the sheriff and the faithful emma ; meanwhile , the unperturbed camille continues her nome - to - bone manipulations trying to further cover up for the murderer while at the [SREP]

[CLS] robert altman 's cookie 's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good . it is a sunny , delightful , dreamy comedy , filled with lovely performances , skillful direction and topped off with an understated , clever , extraordinary script . as this is an ensemble piece , it is so forced to start slow as it wants to do with its characters . but the movie is moving in a southerner who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her husband , we ent to camille (glenn close) who is obsessively directing a play with her sister emma (julianne moore) , then we briefly get acquainted with emma (liv tyler) , an adorable relative of cookie , who is a down - but not out - teen outcast , still full of love and hope even though she has no real place to live . we also fleetly see emma 's lover jason (chris o ' donnell) , an ambitious but far too excitable young cop . we are now about one quarter through the two hour picture , and robert altman decides that it is time to set the plot in motion . he and the putative cookie hopefully at a picture of her husband , she exclaims " here i come ! " and then puts a pillow to her face and shoots herself , soon after , her nice camille stops by to get her fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of it in her family , she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder , she makes sure that she stage it like a murder as well ; scattering jewelry all over the floor , breaking few cabinets , windows and doors , and then throwing the gun out in the back yard , the only reasonable suspect being emma , who immediately gets taken into custody , and put in a jail cell (though she did n't do it) , so the cell stays open and he plays scratchy tape of the sheriff and the faithful emma / " meowhaha " , the unperturbed camille continues her more - or - less - subtle manipulations trying to further cover up for the murder until the **END**.

(i)

(k)

Figure 28: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw attention.

well I'll be damned ... **The foundations you guys had good movie**, the world is coming to an end... we don't know why or how, but apparently there is no way to stop it. The world has had this information for months, as most of the rioting and other assorted chaos has passed and governments have shut down operations... yet for a handful of忠奸混杂 citizens , life goes on... they're not going crazy or attacking people in the streets... instead they're getting together and having a nice evening... doing what they've always wanted to do... a gathering with family and friends and others just seeking to be alone... these people's lives however all intersect their final six hours, written by director - star , **Mark Romanek** , **dir. & screenwriter** , **Mark Romanek** film . **2012** is **not** **surprisingly** compelling as they try and do whatever it is they need to do before their last night on earth . craig (callum kent remie) tries to fulfill all his sexual fantasies , a gas company employee (daniel cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business and patrick (mckellar) just wants to be by himself but it's not having much success , even minor characters keep popping up where you least expect them to , tying everyone even closer ; things seemed a little hoky towards the beginning of the film , but **momentum** **everything** **comes together** nicely (although it's not a happy film) , some moments are understandable , others are just plain weird , like the performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets . come midnight , the sun is still shining brightly ... maybe the sun is crashing into the earth ... who knows , it also is comforting to know that in mankind's final moments the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (who will not a shot at this film mind you ... i know people are just stupid and truly would be out in the street tipping over cars) , last night is available on dvd

[CLS] well i'll be damned . . . the canadians can make a good movie, the world is coming to an end, we do n't know why or how, but apparently there is no way to stop it, the world has had this information for months, as most of the rioting and other assorted chaos has passed and governments have shut down operations, . . . for a handful of terrorist citizens, life goes on . . . they're taking crazy or crackking people to their homes, they're taking them to their cars, they're taking them to their activities they've always wanted to do, some gathering around family and friends, others just seeking to be alone, these people's lives however all intersect during their final six hours . . . writer - director - star don mckellar has created **a [REDACTED]** emotional film [all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth] craig (calum keltie remie) tries to fulfill all his sexual fantasies, a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business, and patrick (mckellar) just wants to be by himself and is n't having much success . . even minor characters keep popping up where you least expect them to, tying everyone even closer . . things seemed a little hokey towards the beginning of the film, but **ultimately everything comes together nicely** although it's not a happy film . . . some scenes are understandably grisly & violent, particularly from scenes of whose character is just trying to get home to her husband before the end, **i have absolutely no problem that the reason for the end of the world is never given**, nor does it bother me that the word that the world is ending at exactly 12 midnight [in toronto anyway], but i do wonder why the sun never sets . . . come midnight, the sun is still shining brightly, maybe the sun is crashing into the earth . . . who knows . . . also, **i [REDACTED] comforting** to know that in mankind's final moments on the planet, people will still stand up on the street for the sheer purpose of pushing over a car a bus (that's not a shot at this film mind you) . . . i know people are just stupid and truly would be out in the street tipping over cars . . . last night people are available on dvd **[SEP]**

[CLS well] I'll be damned .. the canadians can make a good movie . the world is coming to an end . we do n't know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of us citizens this life goes on . they are still living crazy , lacking people in the streets , and those they consider people are elsewhere . the ones who are still active in activities they always wanted to do , some gathering with family and friends , and others just seeking to be alone . these people 's lives however all intersect during their final six hours . writer - director star don mckellar has crafted a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (callum kent remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success . even minor characters keep popping up where you least expect them to , trying everyone even closer . things seemed a little hokey at the beginning of the film , but ultimately everything comes together nicely (although it's not a happy film) . the acting is superb , the direction is excellent , the script is brilliant , and it is filled with unexpected humor and very realistic performances . particularly from stanley who 's character is just trying to get home to her husband before the end . i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets . come midnight , the sun is still shining brightly . maybe the sun is crashing into the earth ... who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that 's not a shot at this film mind you) . i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvd [SEP]



[CLS] well I'll be damned . . . the canadians can make a good movie , the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it , the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on , they are n't going crazy or attacking people in their homes , they are simply trying to do what the era is asking , some people are still working , they 've always been used to doing , some gathering with family and friends , and others just seeking to be alone , these people 's lives however all intersect during their final six hours , writer - director - star don maclellan has created a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth , craig (callum keltch remie) tries to get all his sexual fantasies a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself and is n't having much success , even minor characters keep popping up where you least expect them to , trying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it's not a happy film) , some scenes were quite good and gave you a sense of what the world was like , especially the suspended limbo and very futuristic references , particularly from sandra oh whose character is just trying to get home to her husband before the end , i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , this sun is still shining brightly , maybe the sun is crashing into the earth . . . who knows , also , it 's still shining brightly , to know that in mankind 's final moments on the planet , people will still gang up on the street for their sheer purpose of pushing over a car or a bus (that 's not a shot at this film mind you) , i know people are just stupid and truly would be out in the street tipping over cars , last night is available on dvd [SEP]

[CLS] well i'll be damned . . . the canadians can make a good movie , the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it , the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on , they are n't going crazy or attacking people in the streets , they are still going to work , some are still going to school , in fact , some of their activities that are always meant to do , like going gathering with friends , or meeting others just seeking to be alone , these people 's lives however all intersect during the final six hours . writer - director - star don molaras has created a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth , craig (callum kent remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself and is n't having much success . even minor characters keep popping up where you least expect them to , trying everyone everything things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it's not a happy film) , the story is told in a very effective way giving us a look at the lives of unexpected humans and very realistic封閉 , particularly from a stand of whose character is just trying to get to her husband before the end , i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . . . who knows , also , it 's still shining brightly , to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that 's not a shot at on this film mind you) . i know people are just stupid and truly would be out in the street tipping over cars last night is available on dvd [SEP]

[CLS well I'll be damned... the canadians can make a good movie . the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it] the world has had this information for months ; as most of the rioting and other associated chaos has passed and governments have shut down operations [yet for a handful of toronto citizens , life goes on . they are at] going crazy or attacking people in the streets , or they are still supporting their loved ones in the hospital , or in activities that they are still wanted to do alone , or gathering with family and friends , and others just seeking to be alone . [these people]'s lives however all intersect during their final six weeks [writer - director star don medelkar has crafted a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth , craig (callum keltch remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (medelkar) just wants to be by himself but n't [having much success] even minor characters keep popping up where you least expect them to , tying everyone even closer] things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although [it's not] happy film ...) , and the ending is a bit cliché , but overall it is a good movie . it is helped by unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end [I have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , the sun is still shining brightly ... maybe the sun is crashing into the earth ... who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that [s not a shot at this film mind you) , i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvd [SEP]



[CLS] well i ' ll be damned . . . the canadians can make a good movie . the world is coming to an end , we do n ' t know why or how , but apparently there is no way to stop it , the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on : they are n ' t going crazy or attacking people in the streets , instead they are simple preparing themselves for the end . . . some engaging in activities they ' ve always wanted to do , some gathering with family and friends , and others seeking to be rid of their possessions & live off the grid . craig keith remie is one such soul who , wife & director star in a movie that has **had** **a** **highly** **emotional** **plot** , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (keith remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n ' t having much success . even minor characters keep popping up where you least expect them to , trying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it ' s not a happy film , some moments are understandably gut wrenching) the story is enhanced by some unexpected happenings and very recognizable characters , particularly from sandra oh ' whose character is just trying to get home to her husband before the end . i completely no problem with the reason the end of the world is never given , and does it bother me that the world is ending at exactly 12 midnight ? in fact it does not , but i do wonder why the sun never sets come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . who knows , also , it ' s comforting to know that in mankind ' s final moments on the planet , people will still sing up on the street for their sheer purpose of pushing over a car or a bus (that ' s not a shot at this film mind you , i know people are just stupid and truly would be out in the street tipping over cars) . last night is available on dvd [SEP]

[CLS] well i ' ll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n ' t know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on . they are n ' t going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they ' ve always wanted to do , some gathering with family and friends , and others seeking out a simple example of life ' s little pleasures . craig (keith urban) and his sick but witty director + star daughter have crafted a highly unique and emotional film . if the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (keith urban) tries to rectify all his sexual failings , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be with his b .f. but is n ' t having much success . even minor characters keep popping up where you least expect them to , tying everyone even closer . things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it ' s not a happy film . . . some moments are understandably gut - wrenching) . the story is enhanced by some unexpected humour and very real emotion . particularly from sandra oh , whose character is just trying to get home to her husband before the end . i was absolutely not problems with the reason the end of the world is never given . nor does it bother me that the world is ending at exactly 12 midnight . in fact , i enjoyed it . but i do wonder why the sun never sets . come midnight , the sun is still shining brightly . maybe the sun is crashing and the earth . . . who knows . also , it ' s comforting to know that in mankind ' s final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that ' s not a shot at this film mind you . i know people are just stupid and truly would be out in the street tipping over cars . last night is available on dvd **SEP**

[CLS] well i 'll be damned . . . the canadians can make a good movie . the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on , they are n't going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they 've always wanted to do , some gathering with family and friends , and others just trying to get through another day . a small independent film company , whose slogan is "writer + director = star" , danny meckellar has crafted a highly unique and emotional film . all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth , craig (callum keith remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (meckellar) just wants to be by himself but n't having much success . even minor characters keep popping up where you least expect them to , tying everyone even closer . things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film , some moments are understandably gut - wrenching) . the story is enhanced by some unexpected twists and very realistic characters , particularly frankie (dora) whose character is just trying to get home to her husband before the end . i have genuinely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in a non-specific manner) . but i do wonder why the sun never sets , come midnight , the sun is still shining brightly . maybe the sun is crashing into the earth . who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that 's not a shot at this film mind you . i know people are just stupid and truly would be out in the street tipping over cars) . last night is available on dvd **[\[REDACTED\]](#)**



[CLS] well it'll be damned . . . the canadians can make a good movie , the world is still in an era of an end . . . we don't know why or how , but apparently there is no way to stop it . . . i think he has this kind of vision . . . as most of the reading i do is about the politics of the world and governments and what they're doing , trying to help people in **foreign** citizens . She goes on , they are n't going crazy or attacking people in their streets , instead they are simply preparing themselves for the end . . . some engage in activities they 've always wanted to do , some gathering with family and friends , and others just seeking to be alone , these people 's lives however all intersect during their final six hours . writer - director - star don mckellar has crafted a **highly unique and emotional** film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (callum keltch rennie) tries to make out with all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself and is n't having much success . even minor characters keep popping up where you least expect them to do , tying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film) . the ending is a bit cliché , but gives you a lot of unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me at all that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . who knows . also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for their sheer purpose of pushing over a car a bus (that 's not a shot at this film mind you) . i know people are just stupid and truly would be out in the street tipping over cars , last night is available on dvd [SEP]

[CLS will] be damned... the canadians can make a good movie. the world is coming to an end... we do know why or how, but apparently there is no way to stop it. i think that's what i like about the movie... as much as the riding of horses, asserted she has been and governments have what she wants. for example, a lot of toronto citizens... life goes on, they are n't going crazy or attacking people in the streets, instead they are simply preparing themselves for the end... some engage in activities they've always wanted to do, some gathering with family and friends, and others just seeking to be alone, these people's lives however all intersect during their final six hours. writer - director - star dene mickellar has crafted a highly unique and emotional film... all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth. craig (calum kent remie) tries to fulfill all his sexual fantasies, a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business, and patrick (mickellar) just wants to be by himself and is n't having much success... even minor characters keep popping up where you least expect them to, tying everyone even closer, things seemed a little hokey towards the beginning of the film, but ultimately everything comes together nicely (although it's not a happy ending). i would say it's probably a good movie, it's got a lot of heart, it's got a lot of unexpected humor and very realistic performances... particularly from sandra oh, whose character is just trying to get home to her husband before the end, i have absolutely no problem that the reason for the end of the world is never given, nor does it bother me that the word that is ending at exactly 12 midnight (in toronto anyway), but i do wonder why the sun never sets come midnight, the sun is still shining brightly, maybe the sun is crashing and the earth... who knows, also, it's comforting to know that in mankind's final moments on the planet, people will still hang up on the street for the sheer purpose of pushing over a car a bus (that's not a shot at this film mind you... i know people are just stupid and truly would be out in the street tipping over cars last night are available on dvd **[SOP](#)**)

[CLS well I'll be damned... the canadians can make a good movie. the world is coming to an end... we do n't know why or how, but apparently there is no way to stop the world from ending. i mean, it's not like any of the riding and other species have been told and governments have shut down operations for all local toronto citizens, life goes on... they are n't going crazy or attacking people in the streets... instead they are simply preparing themselves for the end... some, engaging in activities they've always wanted to do, some gathering with family and friends, and others just seeking to be alone... these people's lives however all intersect during their final six hours... writer - director - star don mckellar has crafted a highly unique and emotional film... all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth... craig (callum keltch rennie) tries to fulfill all his sexual fantasies... a gas company employee (david Cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business... and patrick (mckellar) just wants to be by himself but is n't having much success... even minor characters keep popping up where you least expect them to... and everyone even closer... things seemed a little hokey towards the beginning of the film, but ultimately everything comes together nicely (although it's not a happy film... it's a sad film)... the performances are excellent... particularly from sandra oh... her unexpected humor and very realistic performances... particularly from sandra oh... whose character is just trying to get home to her husband before the end... i have absolutely no problem that the reason for the end of the world is never given... nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway)... but i do wonder why the sun never sets... come midnight, the sun is still shining brightly... maybe the sun is crashing into the earth... who knows... also, it's comforting to know that in mankind's final moments on the planet, people will still gang up on the street for the sheer pleasure of pushing over a car or a bus (that's not a shot at this film mind you... i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvr **NEP**



[CLS] well i'll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n't know why or how , but apparently there is no way to stop it ! the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations . yet for a handful of toronto citizens , life goes on . they are n't going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they 've always wanted to do , some gathering with family and friends , and others just seeking to be alone . these people 's lives however all intersect during their final six hours . writer + director star david mckellar has crafted a highly unusual and interesting movie . it is a movie that is both funny and touching , and while it is not perfect , it is they [REDACTED] to do on their last night on earth . eric (evan leonard) tries to fulfill all his sexual fantasies , a gas company employee (david crannenagh) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success . even minor characters keep popping up where you least expect them to , tying everything closer . things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film) . some moments are understandably gut - wrenching . the story is enhanced by some unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no problem that the end of the world is never given , nor does it bother me . the main problem is that the reason for the end of the world is never given , nor does it bother me . the sun sets quickly , and the world begins to tremble . the ground begins to shake , and why the sun never sets , come midnight , the sun is still shining brightly ; maybe the sun is crashing into the earth . . . who knows . also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of piling over a car or a bus (that 's not a shot at this film mind you) . i know people are just stupid and truly would be out in the street tipping over cars . last night is available on dvd [SEP]

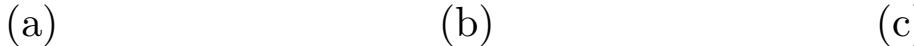
[CLS] well i ' ll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n ' t know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on . they are n ' t going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they ' ve always wanted to do , some gathering with family and friends , and others just seeking to be alone . these people ' s lives however all intersect during their final six hours . writer/director star denis melkula has created a highly atmospheric and suspenseful film that will keep you on the edge of your seat and do whatever it is they need to do on their last night on earth . craig (william katt bonus) tries to fulfill all his sexual fantasies , a gas company employee (david craneberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (melkula) just wants to be home but is n ' t having much success . even minor characters keep popping up where you least expect them to , filming everyone even closer . things seemed a little hokey although it ' s not a happy film , but ultimately everything comes together nicely although it ' s not a happy film . . . some moments are understandably gut - wrenching . the story is enhanced by some unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no problem that the rating for the end of the world is never given , nor does it bother me that the rating is not explicitly mentioned . the rating is clear . the rating is clear . why the sun sets now , come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . . . who knows . also , it ' s comforting to know that mankind ' s final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that ' s not a shot at this film mind you) . i know people are just stupid and truly would be out in the street tipping over cars . last night is available on dvd [SOP](#)



Figure 29: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k)

[CLMS] armageddon, in itself, symbolizes something that is wrong in modern human living; stories have been replaced with special effects; character development gets overshadowed by bad dialogue, plotting is consist of a bunch of shit getting blown up. i'm not gonna say it's as stupid, as ever, any other movie, but i loved every fucking minute of it. "ll come out on this summer... i'm just as shocked as you are... hell, i do i even know who's going to be the star in the first place, the reviews were so amazing that i thought it was going to be the summer blockbuster film of the year, or at least in the running 'till i saw a movie... but it's somebody did 911 that's why it's not quite the tagging that's going to make a movie... but it's not two weeks after the market film using the movie's stupidest lines (" beam me up scotty ") that sure is great writing... . i mean, let's face it; armageddon's previews rive the truman show's as being some of the worst of the year, neither of them even come close to doing their respective films justice, of course, you all know the story, when the earth is threatened with total annihilation via an asteroid the size of texas, nuclear device eight in the us' top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and someone feet into the asteroid (!), in the coarse of all this mayhem we are introduced to some interesting- and not so interesting- characters, belonging to the former group is rockhound (steve buscemi), a horsey woman lington genius who's always full of wisecracks, even when flying into space at a huge amount of g's, also, there's the always cool - as hell billy bob thornton as dan truman, the bigwig nasa who recruits all the drillers, he kind of reminded me of ed harris in apollo 13, on without the intensity and harry granger (bruce willis), who does the whole movie contrived character of harry granger (bruce willis), who does the whole movie employing with an accent i can't quite place), the leader of the pack as well as live tyler and ben affleck [SEP]

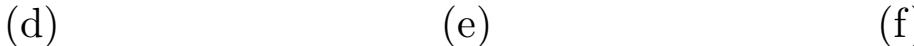
[CLS] armageddon, in itself, symbolizes everything that is wrong with modern filmmaking, stories have been replaced with special effects; character development gets overshadowed by bad dialogue; plotting consists of killing off a living being, np. [CLS] armageddon is stupid, as loud and as shallow as anything you'll see coming from hollywood, it's a movie that may have been fun to make, i loved it, it was freakin' hilarious, i believe me, i just as much as you are, i had no idea i even knew why i wanted to see it in the first place, the previews were so annoying that i predicted this was going to be the worst film of the year, or at least in the running, i'm sorry, but ... somebody dial 911 !!! !!!!! is it a quite the tagging that's going to call a movie, it is, it's too wise either to market the film using the movie's stupidest lines ("beam me up scotty" - yeah, that sure is great writing, ...), instead, let's face it: armageddon's previews rival the truman show's as being some of the worst of the year, neither of them even come close to doing their respective films justice, of course, you all know the story, when the earth is threatened with total annihilation via an asteroid the size of texas, nasa calls in the us' s top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and someodd feet into the asteroid (!). in the coarse of all this mayhem, we are introduced to some interesting - and not so interesting - characters, belonging to the former group is rockhound (steve buscemi), a horry little wonanizing genius who's always full of wisecracks , even when flying into space at a huge amount of g's , also, there's the always cool - as hell billy bob thornton as dr truman , the bigwig at nasa who recruits all the drillers . he kind of reminded me of ed haris in apollo 13 , only without the intensity and great lines to deliver , then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie implying with a annoying accent i can't quite place), the leader of the pack as well as lyer tyler and ben affleck [SEP]



[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking, stories have been replaced with special effects; character development gets overshadowed by bad dialogue ; plotting consists of a bunch of shit getting blown up . armageddon as **shame**, and **loss** as **shadow** as any movie you 'll see come out this summer , or maybe even any other summer . but i loved every fucking minute of it . believe me , i 'm just as shocked as you are . hell , i do n't even know why i went to see it in the first place , the previews were so annoying that i predicted this was going to be the worst film of the year , or at least in the running . i 'm sorry , but "somebody dia 911 !!" is n't quite the tagging that 's going to sell a movie . it is n't to wise either to market the film using the movie 's stupidities ("meat he up scott" - yeah , that sure is great writing . . .) . let 's face it ; armageddon 's reviews prevail because it is a better movie than the worth of the year . i mean , i don 't even care to do more than appreciate film justice , of course , but all i know is that when the earth is threatened with total annihilation via an asteroid the size of texas , nasa calls in the us 's top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and someodd feet into the asteroid (!), in the course of all this mayhem , we are introduced to some interesting - and not so interesting - characters , belonging to the former group is rockhound (steve buscemi) , a horny little womanizing genius who 's always full with wisecracks , even when flying into space at a huge amount of g 's , also , there 's the always cool - as - hell billy bob thornton as dan truman , the bigwig with nasa who recruits all the drillers . kind of reminded me of ed harris in apollo 13 , only without the intensity and great lines to deliver , then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie employing with annoying accent i can 't quite place) , the leader of the pack as well as liv tyler and ben affleck [SEP]

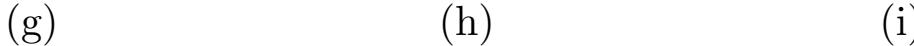
[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking: have been replaced with special effects; character development gets overshadowed by bad dialogue ; plotting consists of a bunch of shit getting blown up , armageddon as stupid , as loud and as shallow as any movie you . "I see come out this summer , maybe even any other summer ; but i loved every fucking minute of it , believe me i 'm just as shocked as you are : hell , i do n't even know why i went to see it in the first place . the previews were so annoying that i predicted this was going to be the worst film of the year , or at least in the running . "i 'm sorry , "but somebody dia 911 !!" is n't quite the tagline that 's going to sell a movie . it is n't wise either to market the film using the movie 's stupidest lines ("beam me up scotty " - that sure is great writing . . .) . i mean , let 's face it : armageddon 's reviews previewed the movie . the reviews of the year , in fact . i am not sure if i can do anything else to do justice to this terrible film . justice , of course , is something all know the story when the earth is threatened with total annihilation via an asteroid the size of a nucleus missile in the us 's top oil drillers (!) to go into space (!) and implant a nuclear device well - hundred and somehow feet into the asteroid (!) . in the course of all this mayhem we are introduced to some interesting - and not so interesting - characters belonging to the various groups of survivors . there is the group of scientists (led by the former group is rockhound (steve buscemi) , a horny woman lyoning genius who 's always full of wisecracks , even when flying into space at a huge amount of g 's , also , there) who 's always cool - as hell billy bob thornton as dan truman , the bigwig nasa who recalls all the drillers . he kind of reminded me of ed harris in apollo 13 , on without the intensity and great lines to deliver , then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie implying with annoying accent i can 't quite place) , the leader of the pack as well as liv tyler and ben affleck [SEP]

[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking, stories have been replaced with special effects; character development gets overshadowed by bad dialogue - plotting consists of a bunch of shit getting blown up || armageddon is as stupid, as loud and as shallow as any movie you || see come out this summer , or maybe even any other summer , but i loved every freaking minute of it , believe me , i || just as shocked as you are . hell , i don ' t even know why i went to see || in the first place || the previews were so annoying that i predicted this was going to be the worst film of the year , or at least in the running || i | sorry , but " somebody dial 911 ! ! ! " is n | quite the tagging that's used to sell a movie || it is n | too wise either to market the film using the movie 's stupidest lines (" beam me up scotty " - yeah, that sum is great || reading) || i mean , let 's face it : armageddon 's reviews rival the reviews of the worst movie of the year . i mean , i don ' t care if you like the movie or not , i do care about their respective films instead of the reviews all know the story - when the earth is threatened with total annihilation via an asteroid the size of texas , nasa calls in the u.s. top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and somesodd feet into the asteroid (!) in the course of || this mayhem , we are introduced to some interesting - and not so interesting - characters belonging to the former group is rockhound (steve buscemi) , a horny little womanizing genius who 's always full of wisecracks , even when flying into space at a huge amount of g 's also , there 's the always cool - as - hell billy bob thornton as dan truman , the bigwig at nasa who recruits all the drillers || he kind of reminded me of ed haris in apollo 13 , only without the intensity and great heat to deliver | then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie employing with annoying accent i can t | quite place) , the leader of the pack as well as liv tyler and ben affleck [SEP]



[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking (has been replaced with special effects; character development gets overshadowed by bad dialogue; plotting consists of a bunch of [REDACTED] getting [REDACTED] up, armageddon as stupid, and as shallow as any movie you [REDACTED] I'll come see it once, maybe even any other summer, but i loved every fucking minute of it, i believe [REDACTED] i'm just as shocked as you are. hell, i do n't even know why i went to see it in the first place, the previews were so annoying that i predicted this was going to be the worst film of the year, or at least in the running, i'm sorry, but some day dial 911 [REDACTED] ! is it n't quite the tagging that's going to sell a movie. it is n't too wise either to market the film using the movie's stupidest lines ("beam me up scotty" - that's sure is great writing . . .). i mean, let's face it: armageddon's reviews rival the truman show's as being some of the worst of the year, neither of them even close to doing their respective films justice, of course, you all know what i mean, the truman show is with total disregard and astuteness of the viewer's intelligence in its top 10. (i go to see [REDACTED] and i think a nuclear device exploded a hundred and someone feet into the stratosferd !), in the coarse of all this mayhem we are introduced to some interesting, and not so interesting, characters, belonging to the former group is rockhound (steve buscemi), a horny little womanizing genius who's always full of wisecracks, even when flying into space at a huge amount of g's , also, there's the always cool - as - hell billy bob thornton as dan truman, the bigwig nasa who recruits all the driller, he kind of reminded me of ed harris in apollo 13, without the intensity and great lines to deliver, then on the flip side of the coin is the contrived, characterized by harry stamper (bruce willis), who does the whole movie employing with annoying accent i can't quite place), the leader of the pack as well as [REDACTED] tyler and ben affleck [SEP]

[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking - stories have been replaced with special effects; character development gets overshadowed by bad dialogue; plot consists of a bunch of [REDACTED] getting [REDACTED] up, armageddon is stupid, as loud and as shallow as any movie you'll see come out this summer , or maybe even any other summer , but i loved every freaking minute of it . believe me , i 'm just as shocked as you are , hell , i don 't even know why i went to see it in the first place , the previews were so annoying that i predicted this was going to be [REDACTED] the worst film of the year , or at least in the running . i 'm sorry , but " sombody dia 911 ?! " is n't quite the tagging that 'll get a sell . movie is i 'm n't too wise either to market the film using the movie 's stupidest lines (" beam me up scotty " , that's sure is great writing ...) . i mean , let 's face it ; armageddon 's reviews rival the truman show 's as being some of the worst of the year . neither of them even come close to doing their respective films justice , of course , you all know the story . when the earth is threatened , the president goes to the sun and says " we 'll be back " . in the end , in the oil drillers (!) to go into space (!) and instead of a nuclear device eight hundred and somcond foot into the asteroid (!) . in the course of all this mayhem , we are introduced to some interesting - and not so interesting - characters , belonging to the former group is rockhound (steve buscemi) , a horny little waniganus genius who 's always full of wisecracks , even when flying into space at a huge amount of g 's . also , there 's the always cool - as - hell billy bob thornton as drat truman , the bigwig at nasa who recruits all the drillers . he kind of reminded me of ed haris in apollo 13 , only without the intensity and great lines to deliver , then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie employing with a annoying accent i can 't quite place) , the leader of the pack as well as liv tyler and ben affleck [SEP]



[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking. stories have been replaced with special effects ; character development gets overshadowed by bad dialogue : plotting consists of a bunch of shit getting blown up ! armageddon is as stupid , as loud and as shallow as any movie you ' ll see come out this summer , or maybe even any other summer . but i loved every freaking minute of it . i believe in me . i ' m just as shocked as you are . hell , i do n't even know why i went to see it in the first place . the reviews were so annoying that i predicted this was going to be the worst film of the year , or at least in the running . i ' m sorry , but this goddamn dia 911 !!! is n't quite the tagging that ' s going to sell a movie . it is to wide out there to market the film using the movie ' s stupidities (' beam us up scotty ' - yeah , this sum is great) . i mean , the face it ; goddamn it ' s reviews right now are terrible . i ' m seeing some of the worst reviews ever . goddamn it . i ' m gonna close to doing their respective films justice , of course , you all know the story : when the earth is threatened with total annihilation via an asteroid the size of texas , nasa calls in the us ' s top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and someone feet into the asteroid (!) . in the course of all this mayhem we are introduced to some interesting - and not so interesting - characters : belonging to the former group is rockhounds (steve buscemi) , a horny little womanizing genius who ' s always full of wisecracks , even while flying into space at a huge amount of g ' s ; also , there ' s the always cool - as - hell billy bob thornton as dan truman , the bigwig at nasa who recruits all the drillers ; kind of reminded me of ed harris in apollo 13 , only without the intensity and great lines to deliver : then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie employing with annoying accent i can ' t quite place) , the leader of the pack as well as lily truen and ben affleck [SEP]

[CLS] armageddon, in itself, symbolizes everything that is wrong in modern filmmaking has been replaced with special effects; character development gets overshadowed by bad dialogue ; plotting consists of a bunch of shit getting blown up , armageddon as stupid , as loud and as shallow as any movie you ' ll see come out this summer , maybe even any other summer . but i loved every fucking minute of it . believe me i ' m just as shocked as you are . hell , i do n't even know why i went to see it in the first place . the previews were so annoying that i predicted this was going to be the worst film of the year , or at least in the running . i ' m sorry , but " some god damn dia 911 ! " is i ' t quite the tagline that ' s going to sell a movie . it is n't too wise either to market the film using the movie ' s stupidest lines (" beam me up scotty ") or the most cliché ones (" i want to let a few more people know about the previews for the human show ") as being some of the best in the year . another of these even comes close to doing their respective films justice , of course , you know what i mean . when the earth is threatened with total annihilation via an asteroid the size of texas nasa calls in the us ' top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and somehow feet into the asteroid (!) . in the coarse of all this mayhem we are introduced to some interesting - and not so interesting - characters , belonging to the former group is rockhound (steve buscemi) , a horny little womanizing genius who ' s always full of wisecracks , even when flying into space at a huge amount of g ' s , also , there ' s the always cool - as - hell billy bob thornton as dr tuman , the bigwig nasa who recruits all the drillers . kind of reminded me of ed harris in apollo 13 , on without the intensity and great lines to deliver , then on the flip side of the coin is the tired , contrived character of hairy stapler (bruce willis) , who does the whole movie employing with annoying accent i ca n't quite place) , the leader of the pack as well as tyler and ben affleck **SOOP**

Figure 30: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k)

THE PREMISE is simple, if not bizarre: a mad scientist (tree beamsley as dr. clayton forrester) launches an average - jet (michael j. nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made... why? it's torturous, it's manipulative, and it's just plain fun... based on the cult - favorite cable television series, mystery science theater 3000, the movie is the first in a planned series of three. **THE PLOT** is this: dr. forrester (mike nelson, *the muppet show*) has built a giant shaped spaceship and spends his days as any young man would dream - indulging in sarcasm and homophobia, and seeing quite a few movies; the catch is, these movies aren't the movies he chooses, but wretched examples of film - making chosen specifically by dr. forrester in an attempt to break mike's will to live... dr. forrester is convinced that one too many b-movies is all it will take to ruin a man, but with a couple of wise - cracking puppet buddies (tom servo, voiced by kevin murphy, and crow t. robot, voiced by beaureille), the torture becomes somewhat of a honorary party for all that is wrong in the world of cheapy cinema, the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man, we watch as the silhouettes of mike, tom, and crow sit in a darkened theater poking fun at the movie going on before them... in this case, it's *the 1964 alien invasion*... **THE FILM** this island earth... we basically watch as other people's movies, and the reviews are... **THE VERDICT**... the plots behind the movies ripped apart are really quite irrelevant, but for the sake of those who might want to know... i'll explain this one: this island earth is the tale of two scientists, a man and a woman, who wind up aboard a spaceship whose crew intends to destroy the earth, together the two wind up aboard as well as their home planet, to make mst3k work, the film - within - the film naturally has to be as horrible as possible, and although the tv - series introduced us to several worse films than this island earth, it's a bad enough flick to bring about some hysterical cruelty... m.

[CLS] the premise is simple, if not bizarre, a mad scientist (trace beaulieu) as dr. clayton forrestor launches an average - joe (michael j. nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made. why? it's torturous , it's maniacal , and it's plain fun , based on the catch - favorite of cable television , mystery science theater 3000 . for dr. forrestor , who is a maniacal scientist on a dog - shaped spacecraft , spends his days as any young man would dream of indulging in sarcasm and horseplay , and seeing quite a few movies . the catch is : these movies are n't the movies he chooses , but retched examples of film - making chosen specifically by dr. forrestor in an attempt to break mike's will to live . dr. forrestor is convinced that one too many b - movies is all it will take to ruin a man , but with a couple of wise - cracking puppet bunnies (tom servo , voiced by kevin murphy , and crow t. robot , voiced by beaulieu) , the torture becomes somewhat of a honorary party for all that is wrong in the world of cheesy cinema . the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movies going on before them . in this case , it's the 1954 sci - fi flick this island earth . we are given the benefit of their bad taste in movies , as well as the benefit of their equally bad taste in their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i'll explain this one . this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survival as well as save their home planet , to make mst3k work , although the tv - series introduced us to several films worse than this island earth , it's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] the premise is simple, if not bizarre, a man scientist (true beauty as dr. clayton forrester) launches an average . joe (michael j. nelson as milo nelson) into space where he forces his subject to watch the most horrendous movies ever made, why ? it's torturous , it's maniacal , and it's just plain fun . based on the cult - favorite cable television series *the movie machine* , the film is n't tons of fun , but it's still a good old fashioned and just plain fun . it feels the bill gates of science fiction , while perhaps , on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies . the catch is , these movies are n't the movies he chooses , but retched examples of film , which chosen specifically by dr. forrester in an attempt to break milo's will to live , dr. forrester is convinced that one too many b - movies is all will take to ruin a man , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kevin murphy , and crow t. robot , voiced by beaurelin), the torture becomes somewhat of a honorary party for all that is wrong in the world of cheezy cinema . the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of milo , tom , and crow sit in a darkened theater poking fun at the movie going on before them . in this case , it's the 1954 sci - fi film this island earth . we can see the movie through their eyes , and we can also see the reactions of the three , their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i'll explain this one . this island earth is a tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mst3k work ~~the~~ film - within the - film naturally has to be ~~terrible~~ as possible , and although the tv - series introduced us to several worse films than this island earth , if it's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

(a)

[CLS] the premise is simple , if not bizarre , a mad scientist (trace beaulieu as dr . clayton forrester) launches an average - joe (michael j . nelson as mike nelson) into space where his forces his subject to watch the most horrendous movies ever made ... why ? it ' s torturous , it ' s maniacal , and if it ' s just plain fun , based on the cult - favorite cable television series , mystery science theater 3000 : the movie is n ' t torturous , but it ' s still a movie , and it ' s still fun . the movie is a dog - bone shaped creature , and this day as any young man would dream , indulging in sarcasm and horseplay , and seeing quite a few movies , the catch is , these movies are n ' t the movies he chooses , but retched examples of film - making chosen specifically by dr . forrester in an attempt to break mike ' s will to live . dr . forrester is convinced that one too many b - movies is all it will take to ruin him , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kevin murphy , and crow t . robot , voiced by ray park) , the torture becomes somewhat of a honorary party for all that is wrong in the world of cheezy cinema , the purpose behind mst3k is to exploit some of the worst films known (even if very few of us) to man , we watch as the silhouettes of milt , tom , and crow sit in a darkened theater poking fun at the movie going public , but in the end , it ' s the 1954 sci - fi film island earth we basically watch as each of them leads the audience through the movie while adding their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i ' ll explain this one , this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mst3k work , the film - within - the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it ' s a bad enough flick to bring about some hysterical cringe . ms [SEP]

[CLAYS] the premise is simple, if not bizarre, a mad scientist (trace beaulieu) as dr. clayton forrester launches an average - joe (michael j. nelson) as milo beulieu into another space where he forces his subject to watch the most horrendous movies ever made... why? it's torturous, it's manipulative, and it's just plain fun, based on the cult - favorite cable television series, mystery science theater 3000; the movie is n't terribly well-made, but it's a dog - brain shaped spoolie, spending this days as you might expect, would dream on indulging in sarcasm and horseplay... and seeing quite a few movies, the catch is, these movies are n't the movies he chooses... but rather etched examples of film - making chosen specifically by dr. forrester in an attempt to break mike's will to live, dr. forrester is convinced that one too many b - movies is all it will take to ruin a man, but with a couple of wise - cracking puppet bunnies (tom servo, voiced by kevin murphy, and crowder t. robot, voiced by beaulieu), the torture becomes somewhat of a honorary party for all that is wrong in the world of cheese cinema, the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man, we watch as the silhouettes of mike, tom, and crow sit in a darkened theater peaking out at the movie going on before them, in this case, it's the 1954 sci - fi film this island earth, which is quite a cult classic, one of the most popular and most often bootlegged due to their hilarious commentary, the plots behind the movies ripped apart really quite irrelevant, but for the sake of those who might want to know, i'll explain this one: this island earth is that of two scientists, a man and a woman, who wind up aboard a spaceship whose crew intends to destroy the earth, together the two fight to survival as well as save their home planet, to make mst3k work, the film - within - the film naturally has to be as horrible as possible, and although the tv - series introduced us to several worst films than this island earth, it's a bad enough flick to bring about some hysterical cruelty. ms [SEP]

[CLS] the premise is simple, if not bizarre, a man scientist (trace beale) as dr. clayton forrester launches an average .10 (michael j. nelson as milos nelson) into space where he forces his subject to watch the most horrendous movies ever made, why? it's torturous, it's maniacal, and it's just plain fun based on the cult - favorite television series ... mystery science theater 3000: the movie is n't torturous, but it's also not a movie, it's a film, and it's a movie that's been made on a dog, a movie shaped like a spaceship, and these days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies i catch is, these movies are n't the movies he chooses , but retched examples of film - making chosen specifically by dr. forrester in an attempt to break mike's will to live | dr. forrester is convinced that one too many b - movies is all it will take to ruin a man, but with a couple of wise - cracking puppet buddies (tom servo, voiced by kevin murphy , and crow t. robot , voiced by beaurelis), the torture becomes somewhat of a honorary party for all that is wrong in the world of cheezy cinema... the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movie going before them | in the end , it's the 1954 sci - fi film this island earth , we basically sit back and let words do the talking , and the words do the talking , and their on their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i'll explain this one: this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mst3k work , the film - intruders within - the film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it's a bad enough flick to bring about some hysterical cruelty ; ms [SEP]

(d)

[CLS] the premise is simple, if not bizarre, a mad scientist (trace beaulieu as dr. clayton forrester) launches an average - joe (michael j. nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made... why? because dr. forrester is a fanatical fan of the worst bad movies ever made. this is a television series i consider stupid theater. [3000 ft] this movie is n't a torture, but, as for being maniacal and just plain fun, it fools the hell outta mike nelson, on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies, the catch is, these movies are n't the movies he chooses , but retched examples of film - making chosen specifically by dr. forrester in an attempt to break mike's will to live , dr. forrester is convinced that one too many b - movies is all it will take to ruin him, but with a couple of wise - cracking puppet buddies (tom servo, voiced by kevin murphy, and crow t. robot, voiced by brian blosil), the torture becomes somewhat of a harpooneer party for all to enjoy in the world of cheapie, low budget puppets. the plot is like a cross section of some of the worst movies ever made if you're lucky (or not) to find a puke at the movie's silhouette of mike , tom , and crow sit and watch as dr. forrester plays cat in the movie going on before them , in this case it's the 1954 sci - fi film this island earth , we basically watch as our three leads watch only get the pleasure of eavesdropping on their hilarious commentary . the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i'll explain this one. this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet . to make mst3k work , the tv - film within the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] the premise is simple , if not bizarre , a mad scientist (trace beaulieu as dr raymond forrestor) launches an average - joe (michael j. nelson as miles nelson) into space where he forces his subject to watch the most horrendous violence ever made , why ? because miles nelson is a television series - mystery science theater 3000 this movie is n't torturous , it's as for being maniacal and just plain fun , it foots the bill quite nicely . miles nelson , on a dog - bone shaped spacecraft , spends his days as any young man would dream indulging in sarcasm and horseplay , and seeing quite a few movies , the catch is , these movies are n't the movies he chooses , but retched examples of film - making chosen specifically by dr. forrestor in an attempt to break miles i will i will i live , dr. forrestor is convinced that one too many b - movies is all it will take to ruin a man , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kirk murphy , and crowder t. robot , voiced by beauregard) , the torture becomes somewhat of a honorary party for miles nelson is writing in the world of science fiction , the premise behind mst3k is that miles nelson is a movie fan , and even if the very few of us who we watch as the silhouettes of miles , tom , and crow sit in a darkened theater poking fun at the movies going on before them , in this case , it 's the 1954 sci - fi film this island earth , we basically watch as our three leads laugh , only we get the pleasure of eavesdropping on their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i 'll explain this one this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their homeworld , to make mst3k work , the film - within - the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it 's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

(g)

[CLS] the premise is simple , if not bizarre , a mad scientist (trace beaulieu as dr. clayton forrester) launches an average - joe (michael j. nelson as mike nelson) into space and he has to learn to work with him . i would like to watch this film . [CLS] it is a movie , it ' s a movie . [CLS] i ' m gonna see it . [CLS] just plain fun , based on a cult - favorite cable television series , mystery science theater 3000 . [CLS] the movie is n ' t torturous , but as for being maniacal and just plain fun , **F**oot the bill quite nicely . mike nelson , on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies . [CLS] the catch is , these movies are n ' t the movies he chooses , but retched examples of film - making chosen specifically by dr. forrester in an attempt to break mike ' s will to live . dr. forrester is convinced that only two many b - movies is all it will take to ruin a man , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kevin murphy , and crow t. robot , voiced by gordon) the torture begins . [CLS] the premise behind this movie is so stupid it is wrong . [CLS] the whole of the movie is wrong . [CLS] the purpose behind making it is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater peaking fum at the movie going on before them . [CLS] in this case it ' s the 1954 sci - fi film this island earth , we basically watch as our three leads watch , only we get the pleasure of eavesdropping on their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , **I**ll explain **this** one . [CLS] this island earth **E**arth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth . together the two fight to survive as well as save their home planet , to make **mst3k** work , the film within - the film naturally has to be **as horrible as possible** , and although the tv - series introduced us to several worse films than this island earth , **I**t ' s **had enough** flick to bring about some hysterical cruelty . ms [SEP]

CLSTK's premise is simple, if not bizarre, a man scientist (trace beaulieu) as dr clayton forrester launches an average "joe" (michael j. nelson as dr nelson) into space to test his new super weapon, the "torture" (which is what it sounds like). it's "t" as in torture, and it's just plain fun, based on the cult - fan favorite cable television series, mystery science theater 3000: the movie is n't torture, but as for being maniacal and just plain fun, it foots the bill quite nicely...miles nelson as a dog - bone shaped spacecraft, spends his days as any young man would dream indulging in sarcasm and horseplay, and seeing quite a few movies, the catch is, these movies are n't the movies he chooses, but retched examples of film - making chosen specifically by dr. forrester in an attempt to break mike's will to live...dr. forrester is convinced that one too many b-movies is all it will take to ruin a man, but with a couple of wise - cracking puppet buddies (tom servo, voiced by kevin murphy, and crow t. robot, voiced by beaulieu), the two of them are determined to prove dr. forrester wrong, and in the spirit of every cinema, their purpose behind mst3k is to explain some of the worst films known (even if by very few of us) to man, we watch as the silhouettes of mike, tom, and crow sit in a darkened theater poking fun at the movies going on before them, in this case, it's the 1954 sci - fi film this island earth, we basically watch as our three leads watch, only we get the pleasure of eavesdropping on their hilarious commentary, the plots behind the movies ripped apart are really quite irrelevant, but for the sake of those who might want to know, i'll explain this one: this island earth is the tale of two scientists, a man and a woman, who wind up aboard a spaceship whose crew intends to destroy the earth, together the two fight to survive as well as save their home planet, to make mst3k work, the film - within - the film naturally has to be as horrible as possible, and although the tv - series introduced us to several worse films than this island earth, it's a bad enough flick to bring about some hysterical reactions, ms. **[REDACTED]**

(k)

Figure 31: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention.

[CLS] for any groom on the verge of proposing marriage to his girlfriend , there are certain rules that he needs to follow . firstly , fill her life with happiness and romance during the courtship . secondly , buy her a beautiful ring that glitters as brightly as her eyes . thirdly , find the perfect moment and location to propose . finally , the groom - wannabe should probably get her parent 's blessing . of these four , the last one can be a nightmare . meeting parents is a rite of passage , fraught with unexpected questions , bouts of nervousness , the reality of being disliked , and the inability to make a positive impression . if you 're lucky , things will go smoothly . but , if you 're greg rocker (ben stiller) , everything will go wrong . and with a name like that , how could it not ? when greg first meets his fianc e 's father , jack byrnes (the grimacing robert deniro) , greg immediately feels overwhelmed and is put on the defensive . when he tells jack that he 's a male nurse , the incorrigible dad shoots back , " not many men in your profession , hub , greg ? " it 's definitely not a good start , but greg is determined to win him over , and it 's this desire that fuels the movie . he first takes small steps such as agreeing to say grace before dinner . it doesn 't matter that he 's jewish , if daddy byrnes asks him to say grace , then that 's what he 's going to gamely do . " oh god . . . you 're such a good god " , he moans . his discomfort at trying to force out a simple prayer will make you chuckle , but when jack gives him the " denim squat " (that familiar , unsettling gaze that gives deniro that aura of invincibility) , it 's pretty hard not to grin . things get progressively worse for greg , and that 's too bad because he 's a genuinely likable guy with a romantic heart . eventually , he begins to try so hard that he starts to mess everything up , committing a host of gaffes that embarrass , humiliate or injure other people . it 's a never - ending ordeal of missteps , miscreas , and mistakes . he buys some champagne , but uncorking the bottle leads to disastrous circumstances . he tries to find jack 's missing cat . but his method

(a)

[CLS] for any groom on the verge of proposing marriage to his girlfriend , there are certain rules that he needs to follow . firstly , fill her life with happiness and romance during the courtship . secondly , buy her a beautiful ring that glitters as brightly as her eyes . thirdly , find the perfect moment and location to propose . finally , the groom - wannabe should probably get her parent 's blessing . of these four , the last one can be a nightmare . meeting parents is a rite of passage , fraught with unexpected questions , bouts of nervousness , the reality of being disliked , and the inability to make a positive impression . if you 're lucky , things will go smoothly . but , if you 're greg rocker (ben stiller) , everything will go wrong . and with a name like that , how could it not ? when greg first meets his fianc e 's father , jack byrnes (the grimacing robert deniro) , greg immediately feels overwhelmed and is put on the defensive . when he tells jack that he 's a male nurse , the incorrigible dad shoots back , " not many men in your profession , hub , greg ? " it 's definitely not a good start , but greg is determined to win him over , and it 's this desire that fuels the movie . he first takes small steps such as agreeing to say grace before dinner . it doesn 't matter that he 's jewish , if daddy byrnes asks him to say grace , then that 's what he 's going to gamely do . " oh god . . . you 're such a good god " , he moans . his discomfort at trying to force out a simple prayer will make you chuckle , but when jack gives him the " denim squat " (that familiar , unsettling gaze that gives deniro that aura of invincibility) , it 's pretty hard not to grin . things get progressively worse for greg , and that 's too bad because he 's a genuinely likable guy with a romantic heart . eventually , he begins to try so hard that he starts to mess everything up , committing a host of gaffes that embarrass , humiliate or injure other people . it 's a never - ending ordeal of missteps , miscreas , and mistakes . he buys some champagne , but uncorking the bottle leads to disastrous circumstances . he tries to find jack 's missing cat . but his method [SEP]

[CLS] for any groom on the verge of proposing marriage to his girlfriend , there are certain rules that he needs to follow . firstly , fill her life with happiness and romance during the courtship . secondly , buy her a beautiful ring that glitters as brightly as her eyes . thirdly , find the perfect moment and location to propose . finally , the groom - wannabe should probably get her parent 's blessing . of these four , the last one can be a nightmare . meeting parents is a rite of passage , fraught with unexpected questions , bouts of nervousness , the reality of being disliked , and the inability to make a positive impression . if you 're lucky , things will go smoothly . but , if you 're greg rocker (ben stiller) , everything will go wrong . and with a name like that , how could it not ? when greg first meets his fianc e 's father , jack byrnes (the grimacing robert deniro) , greg immediately feels overwhelmed and is put on the defensive . when he tells jack that he 's a male nurse , the incorrigible dad shoots back , " not many men in your profession , hub , greg ? " it 's definitely not a good start , but greg is determined to win him over , and it 's this desire that fuels the movie . he first takes small steps such as agreeing to say grace before dinner . it doesn 't matter that he 's jewish , if daddy byrnes asks him to say grace , then that 's what he 's going to gamely do . " oh god . . . you 're such a good god " , he moans . his discomfort at trying to force out a simple prayer will make you chuckle , but when jack gives him the " denim squat " (that familiar , unsettling gaze that gives deniro that aura of invincibility) , it 's pretty hard not to grin . things get progressively worse for greg , and that 's too bad because he 's a genuinely likable guy with a romantic heart . eventually , he begins to try so hard that he starts to mess everything up , committing a host of gaffes that embarrass , humiliate or injure other people . it 's a never - ending ordeal of missteps , miscreas , and mistakes . he buys some champagne , but uncorking the bottle leads to disastrous circumstances . he tries to find jack 's missing cat . but his method [SEP]

(b)

[CLS] for any groom on the verge of proposing marriage to his girlfriend , there are certain rules that he needs to follow . firstly , fill her life with happiness and romance during the courtship . secondly , buy her a beautiful ring that glitters as brightly as her eyes . thirdly , find the perfect moment and location to propose . finally , the groom - wannabe should probably get her parent 's blessing . of these four , the last one can be a nightmare . meeting parents is a rite of passage , fraught with unexpected questions , bouts of nervousness , the reality of being disliked , and the inability to make a positive impression . if you 're lucky , things will go smoothly . but , if you 're greg rocker (ben stiller) , everything will go wrong . and with a name like that , how could it not ? when greg first meets his fianc e 's father , jack byrnes (the grimacing robert deniro) , greg immediately feels overwhelmed and is put on the defensive . when he tells jack that he 's a male nurse , the incorrigible dad shoots back , " not many men in your profession , hub , greg ? " it 's definitely not a good start , but greg is determined to win him over , and it 's this desire that fuels the movie . he first takes small steps such as agreeing to say grace before dinner . it doesn 't matter that he 's jewish , if daddy byrnes asks him to say grace , then that 's what he 's going to gamely do . " oh god . . . you 're such a good god " , he moans . his discomfort at trying to force out a simple prayer will make you chuckle , but when jack gives him the " denim squat " (that familiar , unsettling gaze that gives deniro that aura of invincibility) , it 's pretty hard not to grin . things get progressively worse for greg , and that 's too bad because he 's a genuinely likable guy with a romantic heart . eventually , he begins to try so hard that he starts to mess everything up , committing a host of gaffes that embarrass , humiliate or injure other people . it 's a never - ending ordeal of missteps , miscreas , and mistakes . he buys some champagne , but uncorking the bottle leads to disastrous circumstances . he tries to find jack 's missing cat . but his method [SEP]

(d)

[CLS] for any groom on the verge of proposing marriage to his girlfriend , there are certain rules that he needs to follow . firstly , fill her life with happiness and romance during the courtship . secondly , buy her a beautiful ring that glitters as brightly as her eyes . thirdly , find the perfect moment and location to propose . finally , the groom - wannabe should probably get her parent 's blessing . of these four , the last one can be a nightmare . meeting parents is a rite of passage , fraught with unexpected questions , bouts of nervousness , the reality of being disliked , and the inability to make a positive impression . if you 're lucky , things will go smoothly . but , if you 're greg rocker (ben stiller) , everything will go wrong . and with a name like that , how could it not ? when greg first meets his fianc e 's father , jack byrnes (the grimacing robert deniro) , greg immediately feels overwhelmed and is put on the defensive . when he tells jack that he 's a male nurse , the incorrigible dad shoots back , " not many men in your profession , hub , greg ? " it 's definitely not a good start , but greg is determined to win him over , and it 's this desire that fuels the movie . he first takes small steps such as agreeing to say grace before dinner . it doesn 't matter that he 's jewish , if daddy byrnes asks him to say grace , then that 's what he 's going to gamely do . " oh god . . . you 're such a good god " , he moans . his discomfort at trying to force out a simple prayer will make you chuckle , but when jack gives him the " denim squat " (that familiar , unsettling gaze that gives deniro that aura of invincibility) , it 's pretty hard not to grin . things get progressively worse for greg , and that 's too bad because he 's a genuinely likable guy with a romantic heart . eventually , he begins to try so hard that he starts to mess everything up , committing a host of gaffes that embarrass , humiliate or injure other people . it 's a never - ending ordeal of missteps , miscreas , and mistakes . he buys some champagne , but uncorking the bottle leads to disastrous circumstances . he tries to find jack 's missing cat . but his method [SEP]

(g)

[CLS] for any groom on the verge of proposing marriage to his girlfriend , there are certain rules that he needs to follow . firstly , fill her life with happiness and romance during the courtship . secondly , buy her a beautiful ring that glitters as brightly as her eyes . thirdly , find the perfect moment and location to propose . finally , the groom - wannabe should probably get her parent 's blessing . of these four , the last one can be a nightmare . meeting parents is a rite of passage , fraught with unexpected questions , bouts of nervousness , the reality of being disliked , and the inability to make a positive impression . if you 're lucky , things will go smoothly . but , if you 're greg rocker (ben stiller) , everything will go wrong . and with a name like that , how could it not ? when greg first meets his fianc e 's father , jack byrnes (the grimacing robert deniro) , greg immediately feels overwhelmed and is put on the defensive . when he tells jack that he 's a male nurse , the incorrigible dad shoots back , " not many men in your profession , hub , greg ? " it 's definitely not a good start , but greg is determined to win him over , and it 's this desire that fuels the movie . he first takes small steps such as agreeing to say grace before dinner . it doesn 't matter that he 's jewish , if daddy byrnes asks him to say grace , then that 's what he 's going to gamely do . " oh god . . . you 're such a good god " , he moans . his discomfort at trying to force out a simple prayer will make you chuckle , but when jack gives him the " denim squat " (that familiar , unsettling gaze that gives deniro that aura of invincibility) , it 's pretty hard not to grin . things get progressively worse for greg , and that 's too bad because he 's a genuinely likable guy with a romantic heart . eventually , he begins to try so hard that he starts to mess everything up , committing a host of gaffes that embarrass , humiliate or injure other people . it 's a never - ending ordeal of missteps , miscreas , and mistakes . he buys some champagne , but uncorking the bottle leads to disastrous circumstances . he tries to find jack 's missing cat . but his method [SEP]

(j)

Figure 32: A visualization of the results. For each of the methods that are not bit-exact when replacing the class appear for both the correct class and the opposite one. The rollout method, as well as the raw attention methods are class agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) rollout. (k) raw-attention.

" when you get out of jail , you can kill him " starring ashley judd , tommy lee jones , bruce greenwood , rated r. double jeopardy is a 1990 suspense/horror film directed by andrew davis . it is a suspenseful and atmospheric action that is as suspenseful and clever as it is gory . the film is set in a small town in the midwest where the main character , ashley judd , has three choices : learning the plot ; meeting the killer person (and she never stops) ; or being framed in the female version of the fugitive and the hunted . she probably got arrested assessment of the plot , but the film itself has little in common with the 1993 andrew davis / harriett ford collaboration besides the presence of star tommy lee jones . not to mention the same director , andrew davis , directed bruce greenwood in the 1991 film from the get - go , and never finds the body . the film is a basically hippie - style movie with lots of sex and nicks pants (ashley judd and bruce greenwood , respectively) ; a seemingly happy married couple , with a son matty , age 4 . they go out to sleep , lily hears a strange noise , wakes up and discovers that she is covered with blood , she follows a red trail to the upper deck , where she finds a knife and , out of astonishment , picks it up . at that convenient moment , the coast guard shows up and lily is arrested , her lawyer , a friend , is put to work , compelling ; her friend adopts her son and she goes to prison , once in prison , she makes a phone call and her best friend gives her some information , what will it be ? the answer is " you are pregnant " . during her stay in the dead - by - water jail , the man she was accused of killing is impregnated for killing ; it 's not even dead , she gets some advice from a prisoner / former lawyer , who tells her that since the state already convicted her of killing her husband , they can 't convict her of the same crime again , meaning that when she gets paroled she can kill him and they can 't touch her . after a weirdly short amount of time , she gets out of parole , she is sent to live with other recent parolees , under the command of parole officer travis lehman (tommy lee jones) , she sets out

[CLS] when you get out of jail, you can kill him," staring ashey judd, tommy lee jones, bruce greenwood, rated r, double jeopardy [S] lurid, preposterous thriller that's also one of the year's most enjoyable. [S] uncompromisingly brutal, cheerfully anarchic, hyperactive actioner that has a mission and never diverts from it; there is not a moment here when the events on screen do n't have a direct bearing on the plot; once the film gets going it never stops. it has been branded as the female version of the fugitive and that's probably a correct assessment of the plot, but the film itself has little in common with the 1993 andrew cassavetes / harrison ford collaboration besides the presence of star tommy lee jones, not even bothered with character introductions, directed by tony scott, it finds the girl/guy in the gun and gets his hands broken, gets his mother killed, rather than his wife/mother (sally field) and he finds himself, respectively) a seemingly happy married couple, with a son matty, age 4, they get out on a sailboat one night, and after a period of some rockin' sex, they go to sleep. libby hears a strange noise, wakes up and discovers that she is covered with blood, she follows a red trail to the upper deck, where she finds a knife and, out of astonishment, picks it up, at that convenient moment, the coast guard shows up and libby is arrested. her lawyer, a friend, puts up a defense in court, but though we know she is innocent, the evidence against her is too compelling, her friend adopts her son and she goes to prison...once in prison, she makes a phone call to her friend, her friend gives her son the phone, nick walks in the room, little matty screams "daddy!" the phone goes dead. libby walks that man she is imprisoned for killing is n't even dead, she gets some advice from a prisoner / former lawyer, who tells her that since the state already convicted her of killing her husband, they ca n't convict her of the same crime again meaning that when she gets paroled she can kill him and they ca n't touch her, after a weirdly short amount of time, she gets out of parole, she is sent to live at a house with other recent parolees, under the command of parole officer travis lehman (tommy lee jones), she sets out [SEP]

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