# Model Development Phase Template

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| Date | 15 October 2024 |
| Team ID | 739823 |
| Project Title | Spooky Author IdentificationUsing Deep Learning |
| Maximum Marks | 5 Marks |

**Model Selection Report :**

In the model selection report for future deep learning and computer vision projects, various architectures, such as CNNs or RNNs, will be evaluated. Factors such as performance, complexity, and computational requirements will be considered to determine the most suitable model for the task at hand.

**Model Selection Report :**

| **Model** | **Descripition** |
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| Keras | A Keras model for spooky author identification uses supervised learning to classify the author of a given text, focusing on differentiating between authors like Edgar Allan Poe, H.P. Lovecraft, or Mary Shelley based on the unique linguistic and stylistic patterns in their writing. The model architecture typically starts with an embedding layer that converts words into dense vector representations, capturing semantic relationships between words. This is followed by one or more LSTM or GRU layers, which excel at capturing long-term dependencies and sequential patterns in text data. Dense layers with ReLU activation functions are then used for higher-level feature extraction. The output layer employs a softmax activation function to produce probabilities for each class (author). Input text undergoes preprocessing steps such as tokenization, converting words to integers, and padding sequences to ensure consistent input length. Pretrained embeddings like GloVe or Word2Vec can be used to enhance the model's understanding of word relationships. The model is |

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| | trained using the categorical cross-entropy loss function, optimized with Adam to ensure efficient convergence, and evaluated using accuracy to measure classification performance. Additional techniques like dropout can be applied to prevent overfitting, making the model robust for generalization. |