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| Date | 9 JULY 2024 |
| Team ID | INDIVIDUAL |
| Project Title | CareerCraft: ATS-Optimized Resume Analyzer using Gemini Model |
| Maximum Marks | 10 Marks |

**Model Optimization and Tuning Phase Report**

**Model Optimization and Tuning Phase**

The Model Optimization and Tuning Phase involves refining machine learning models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

**Hyperparameter Tuning Documentation (6 Marks):**

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| **Model** | **Tuned Hyperparameters** | **Optimal Values** |
| Gemini Pro | - Prompt structure  - API parameters | - Customized prompts  - Balanced response time and quality |

**Final Model Selection Justification (2 Marks):**

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| --- | --- |
| **Final Model** | **Reasoning** |
| Gemini Pro | The Gemini Pro model was chosen for its excellent NLP capabilities, accurately matching resumes with job descriptions, providing relevant skill suggestions, and offering career guidance. Its performance metrics align with project goals, making it the optimal choice. |

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| **Model** | **Optimized Metric** |
| Gemini Pro | - F1 Score: 80% - Accuracy: 81% |

**Performance Metrics Comparison Report (2 Marks):**