**Model Development Phase Template**

|  |  |
| --- | --- |
| Date | 15 July 2024 |
| Team ID | 739836 |
| Project Title | Predictive Modeling For H1b Visa Approval Using Machine Learning |
| Maximum Marks | 5 Marks |

**Feature Selection Report Template**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Feature Name** | **Description** | **Important Score** | **Selection Status** | **Reason For Selection** |
| Job Title | Title of the job position | 0.15 | Selected | High correlation with visa approval |
| Employer Name | Name of the employer | 0.10 | Selected | Significant impact on approval rates |
| Full Time Position | Whether the job is full-time or part time | 0.08 | Selected | Relevant for determining job stability |
| Prevailing Wage | Wage offered for the job | 0.12 | Selected | Important economic indicator |

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision.



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Education Level | Applicant’s high education level | 0.09 | Selected | Higher education often correlates with approval |
| Years Of Experience | Applicant’s year of experience | 0.07 | Selected | Experience can influence approval decisions |
| Job Location State | State where the job is located | 0.04 | Excluded | Less significant impact on prediction model |
| Job Location City | City where the job is located | 0.03 | Excluded | High dimensionality. Low individual impact |
| Industry | Industry of the job | 0.06 | Selected | Different industries have different approval rates |
| NAICS code | North American Industry Classification System Code | 0.02 | Excluded | Low impact on model performance |
| Application Type | Type of H1B application (e.g.,  new,renewal) | 0.11 | Selected | Different application types have different approval rates |
| Approval Status | Status of the application | N/A |  |  |