|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Contingencies | Likelihood | Impact |
| Pose estimation unstable in complex scenes (e.g., occlusion, dynamic background) | Optimizing the dataset with more occlusion scene data | High | Very High |
| Low Frame Rates | Optimizing model efficient, invest in high-quality hardware | High | Medium |
| Model computation time is too long for real-time simulation | Optimizing model efficient and using hardware acceleration | High | Medium |
| Reliance on specific deep learning frameworks, leading to migration difficulties | Reduced binding to specific frameworks | Medium | High |
| Data damage or lost | Using GitHub or external storage devise to make backup | Medium | Very High |
| Data Privacy | Implementing robust data encryption and comply with data protection law such as GDPR. | Medium | Very High |
| Ethical and Regulatory | Consulting with regulatory experts and following related regulations | Very Low | High |
| Timeline delay | Making a detailed timeline and a thorough monitoring plan | High | High |

\begin{table}[h!]

\centering

\renewcommand{\arraystretch}{1.5}

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\hline

\Large\textbf{Risk} & \Large\textbf{Contingencies} & \Large\textbf{Likelihood} & \Large\textbf{Impact} \\

\hline

\Large Pose estimation unstable in complex scenes (e.g., occlusion, dynamic background) & \Large Optimizing the dataset with more occlusion scene data & \Large High & \Large Very High \\

\hline

\Large Low Frame Rates & \Large Optimizing model efficiency, invest in high-quality hardware & \Large High & \Large Medium \\

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\Large Model computation time is too long for real-time simulation & \Large Optimizing model efficiency and using hardware acceleration & \Large High & \Large Medium \\

\hline

\Large Reliance on specific deep learning frameworks, leading to migration difficulties & \Large Reduced binding to specific frameworks & \Large Medium & \Large High \\

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\Large Data damage or lost & \Large Using GitHub or external storage devices to make backup & \Large Medium & \Large Very High \\

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\Large Data Privacy & \Large Implementing robust data encryption and comply with data protection laws such as GDPR & \Large Medium & \Large Very High \\

\hline

\Large Ethical and Regulatory & \Large Consulting with regulatory experts and following related regulations & \Large Very Low & \Large High \\

\hline

\Large Timeline delay & \Large Making a detailed timeline and a thorough monitoring plan & \Large High & \Large High \\

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\end{tabular}}

\caption{Risk Assessment Table}

\end{table}