**Number：01**

**Version: 03**





**Project risk plan**

Software Project Management Group 11

Time：2023.3.20

**1、Background**

Artificial intelligence is a strategic emerging industry in China. With the continuous improvement and upgrading of various industries, industrial informatization has gradually been put on the agenda. AI plays an important role in informatization, which can replace human to complete some complex and time-consuming tasks in the past.

Fabric defect detection is an important part of production and quality management in the textile industry, and intelligent detection of fabric defects has been a technical bottleneck that has puzzled the industry for many years. Currently, almost all of the detection are manual tasks, which are susceptible to subjective factors and lack consistency; And long-term work under strong light has a huge impact on testers’ health. Using advanced technologies such as AI and CV to achieve intelligent detection of fabric defects is undoubtedly of great value.

**2、 Project overview**

This project aims to develop an online fabric defect detection system. It is mainly composed of an online detection module and a deep learning module. The online detection module provides an interface on which users can upload images for detection or generate images for performance testing. The deep learning module is mainly composed of corresponding models to provide defect detection function.

The system is developed by B/S architecture, and the entire system will be released together after completion, rather than individually for each module.

**3、 Risk schedule**

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| --- | --- | --- | --- | --- | --- |
| Risk number | Risk  Type | Risk  description | Impact | Danger | Solution |
| T1 | Human Resources Risk | Due to the changes of preson among project members who is unable to continue participating in the project. | Medium | Medium | PM must hold at least two group meetings per week to communicate project progress. Each person should present their works and trying to make everyone aware of the details of the work.  2. Increase the workload by 1.5 hours per week. |
| T2 | Management Risk | Risk of  poor  communication | Medium | low | 1.PM should hold weekly group meeting to discuss project progress.  2.PM must establish a WeChat group where team members can discuss technical difficulties timely |
| T3 | Schedule  Risk | Unable to complete due to time constraints.  The project plan may faces delays. | High | High | 1.PM should make a reasonable schedule.  2.During the weekly group meeting, if any team member fails to complete the planned work on time due to some reasons, the member will increase their working time next week to compensate previous week's work or other team members will assist |
| T4 | Technical Risks | 1.Technical difficulties leading to project schedule delays.  2.Team is unable to build a robust model due to hardware  performance.  3.Team chooses a wrong model that can’t solve the problem proposed. | High | Medium | 1.Developer should design a reasonable system architecture and improve code quality.  2.The performance of the model can be allowed to be weak，but it must be able to complete corresponding tasks. |
| T5 | Requirement Risk | Frequent changes of requirements lead to the delay of development progress. | High | High | 1. Two weeks after the start of the course,PM should hold one or two group meetings per week to strengthen communication, clarify project and requirements. 2. Team members need to inform the project manager of the new requirement, and the project manager will organize a meeting to discuss whether to add the new requirement. If all team members agree, the new requirement will be added. |
| T6 | Technical Risks | System defects and vulnerabilities leads to data leakage or system paralysis | High | High | Developer should design a system security mechanism based on industry standards and security requirements to encrypt, store, and transmit sensitive information; Conduct periodic vulnerability scanning to enhance data backup and disaster recovery |
| T7 | Management Risk | The difference in the ability and level of the project management team brings uncertainty risk to the project construction. These management capabilities and levels include: the preparation and implementation of project schedule plan, the ability to plan and manage project human resources, the ability to manage project change, the ability to manage project communication, and the ability to manage project risk. | High | High | Each team member needs to be familiar with project management and keep learning.  At the same time, it is necessary to strengthen communication. When there is any problem, it is necessary to inform the project manager, and then the project manager organizes a meeting to discuss. |