### Completed

In progress

Unstarted (Behind on)

Unstarted

| **ID** | **User Story** | **Priority** | **Status** |
| --- | --- | --- | --- |
| MA-01 | As a user, I want to start and stop finger tracking easily on the mobile application. | High | Completed |
| MA-02 | As a user, I want to set up the camera and LED gloves for gesture tracking. | High | In progress |
| MA-03 | As a developer, I want to manage device and server-related errors during setup. | Medium | Completed |
| VR-01 | As a user, I want to view my 3D hand movements in VR/AR. | Low | In Progress |
| VR-02 | As a user, I want to monitor real-time hand tremors and calibration data in VR. | Low | In Progress |
| VR-03 | As a developer, I want to ensure the camera and LED gloves integrate seamlessly with VR. | Low | Unstarted |
| IP-01 | As a user, I want to start and stop real-time gesture recording. | High | Completed |
| IP-02 | As a developer, I want to enhance image quality with sharpening and noise reduction. | High | Completed |
| IP-03 | As a developer, I want to output the processed gesture data in a format ready for machine learning processing. | Medium | In Progress |
| IP-04 | As a developer I want to improve the image processing modules speed and efficiency. | Medium | In Progress |
| IP-05 | As a developer I want to switch from processing a saved video to processing a real-time video stream. | Low | Completed |
| ML-01 | As a developer, I want to apply sharpening and noise reduction to gesture data. | High | Completed |
| ML-02 | As a developer, I want to use YOLOv8 for object detection and coordinate extraction. | High | In Progress |
| ML-03 | As a developer, I want to apply Kalman Filters and nearest neighbors to smooth gesture paths. | High | In progress |
| ML-04 | As a developer, I want to convert smoothed paths to text using the LSTM model. | High | In Progress |
| ML-05 | As a user, I want to see the text version of my writing in real-time on the mobile app or Unity 3D VR scene. | Medium | Unstarted |
| ML-06 | As a developer, I want to optimize the machine learning model for mobile and VR. | Medium | In Progress |
| DV-01 | As a user, I want to see my virtual writing rendered in 3D for accurate feedback. | Medium | In Progress |
| DV-02 | As a developer, I want to use Unity3D for real-time visualization of hand movements in VR. | Medium | In progress |
| QA-01 | As a developer, I want to test the application for performance, accuracy, and stability across all modules. | High | Unstarted |
| QA-02 | As a developer, I want to ensure proper error handling across all modules. | High | Unstarted |