Biweekly Report

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Period: April 21 - May 11, 2025

Project: Smart Maintenance Platform for Aero Engine Industrial Equipment

Week 1: Core Interface Development (April 21-27, 2025)

During this period, I focused on implementing the core interface components for our ML-based device lifespan prediction web application. I delivered the following components:

- **Model Management System Interface**
- **User Management Interface**
- **Forecast Analysis Interface**
- **Device Management Interface**

Time spent on Core Interface Development: 10 hours

Week 2: Non-Core Interface Development (May 5-11, 2025)

After the holiday break, this week I focused on implementing the non-core interface components:

1. **Monitoring Center Interface**
   - Implemented real-time dashboard with equipment status visualization
   - Created parameter monitoring panels with threshold indicators
   - Developed trend analysis charts with customizable time ranges
   - Implemented equipment health score visualizations

2. **Alert System Interface**
   - Created alert notification center with priority-based sorting
   - Implemented alert detail view with action tracking
   - Developed alert history and resolution workflow
   - Created alert settings configuration interface

3. **Report Generation Interface**
   - Implemented report template selection and customization
   - Created data visualization components for reports
   - Developed export functionality with multiple format support
   - Implemented scheduled report configuration

Time spent: 26 hours

Completed WBS Items

- 4.4.1 Core Interface Development (WBS Item, 28 hours) - 100% Complete
- 4.4.2 Non-Core Interface Development (WBS Item, 26 hours) - 85% Complete

Challenges & Solutions

The main challenge I faced was ensuring consistent user experience across different browsers and device types. I addressed this by:

1. Implementing a responsive design system based on fluid grid layouts
2. Creating device-specific optimizations for critical interfaces

Next Steps

1. Complete remaining non-core interface components
2. Finalize styling and visual consistency across all interfaces

Total Hours Worked

Total hours for this reporting period: 36 hours