Case Study: Pandemic Adaptation (Pandemic Adaptation)

🦠 COVID-19 Model Updates

- Initial: Based on pneumonia diagnosis model
- March 2020: Additional learning of COVID-19 features
- Mid-2020: Response to variant viruses
- 2021: Integration of vaccination status

📊 Adaptation Timeline

- Week 1-2: Initial data collection (China, Italy)
- Week 3-4: Emergency model update and validation
- Month 2-3: Global deployment and regional adaptation
- Year 1+: Continuous improvement and variant response

📈 Performance Changes

- Initial model: COVID-19 detection AUC 0.75
- After update: AUC 0.92 (17% improvement)
- False negative rate: 25% → 8% reduction

- Processing time: Maintained (< 50ms)