



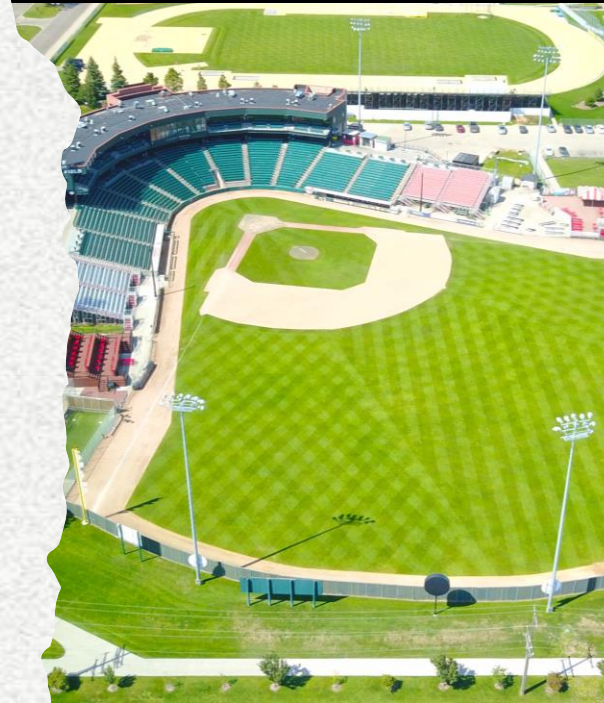
Securing Soft Targets - Challenges and Opportunities in Development and Integration of Real-Time AI Algorithms for Video Data



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So What? Who Cares?

- Space: Soft Target Area Security
- Problem: Soft targets are accessible to large numbers of people with **limited security measures**
- Solution: Use AI **as a force multiplier** to identify abandoned items in vulnerable, soft target areas through integration with existing infrastructure
- TRL: 5

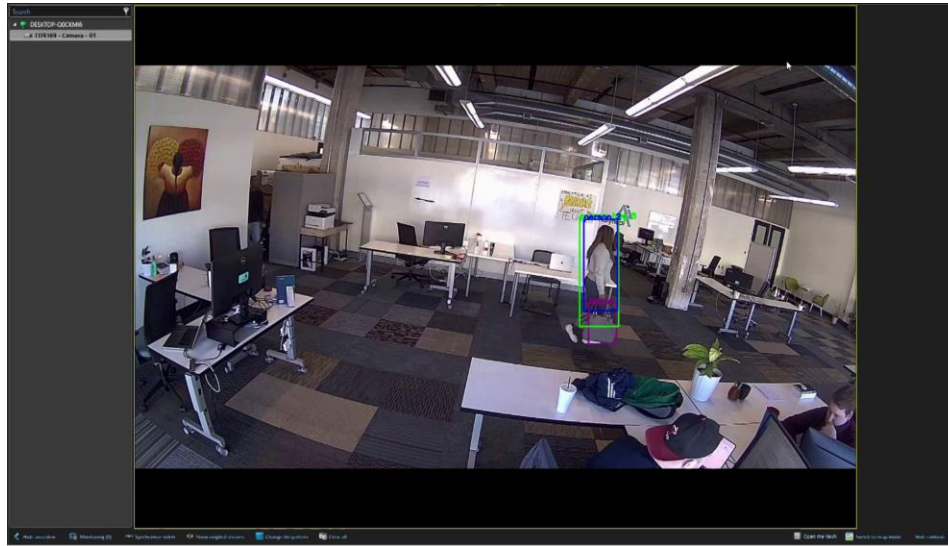
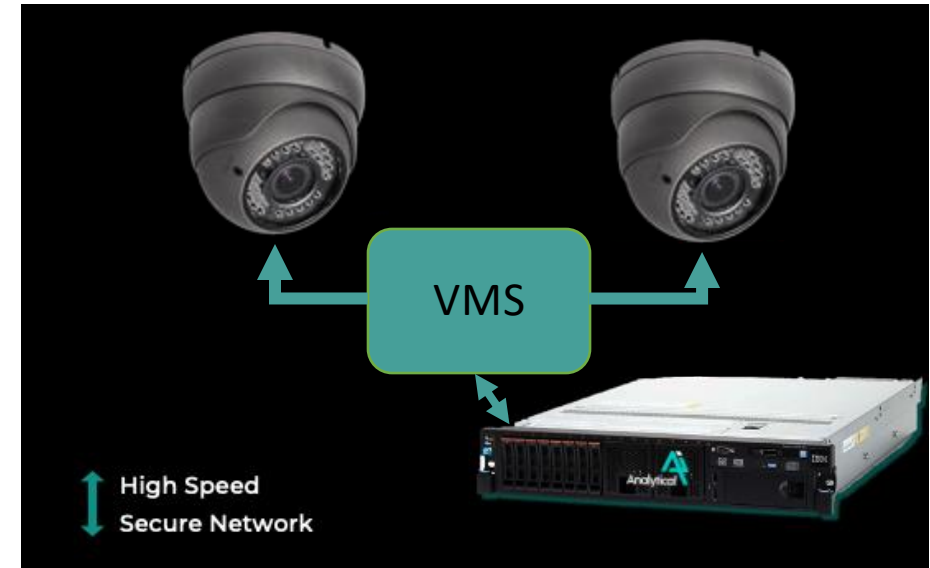
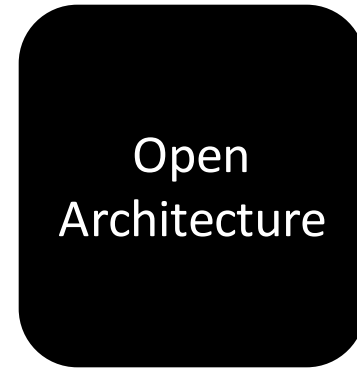
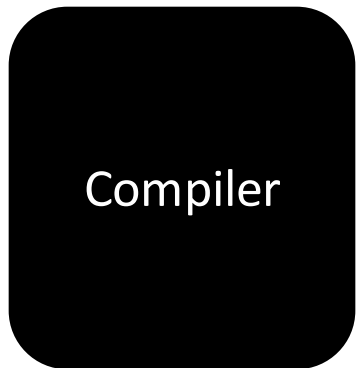




Real-time Evaluation of Security in Soft Targets: RESiST - Demo

- **Challenge**
 - Identify abandoned items in vulnerable, soft target areas
 - Improve Situational Awareness for the Human in the Loop
- Surface transportation

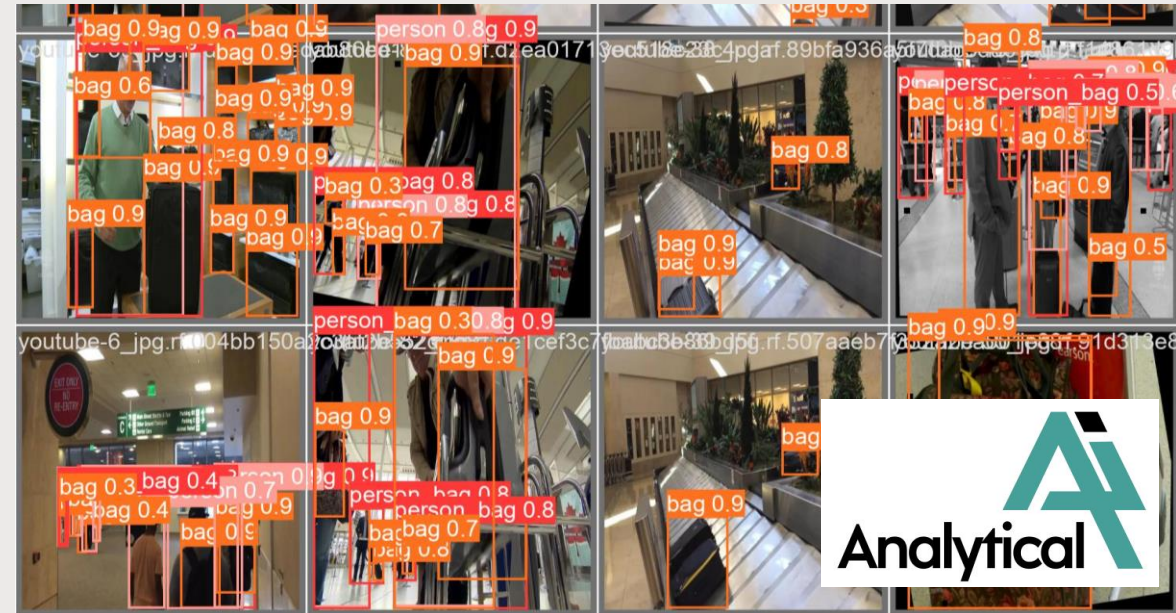
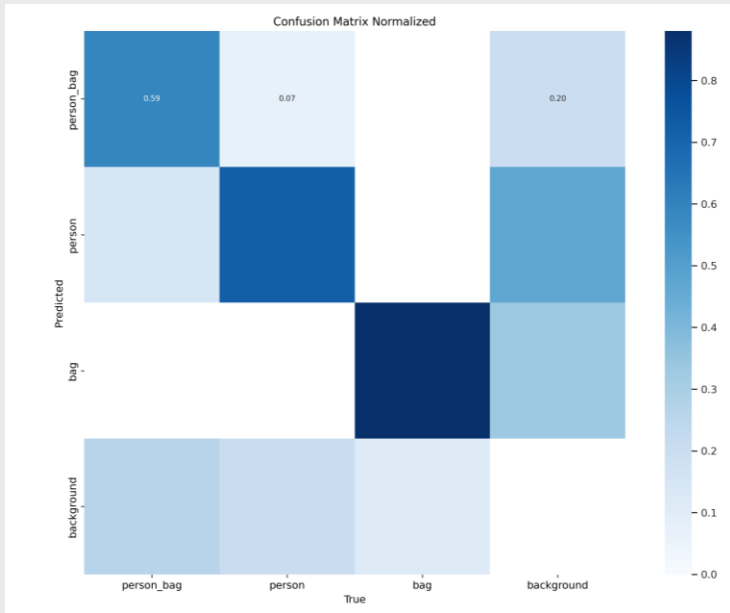
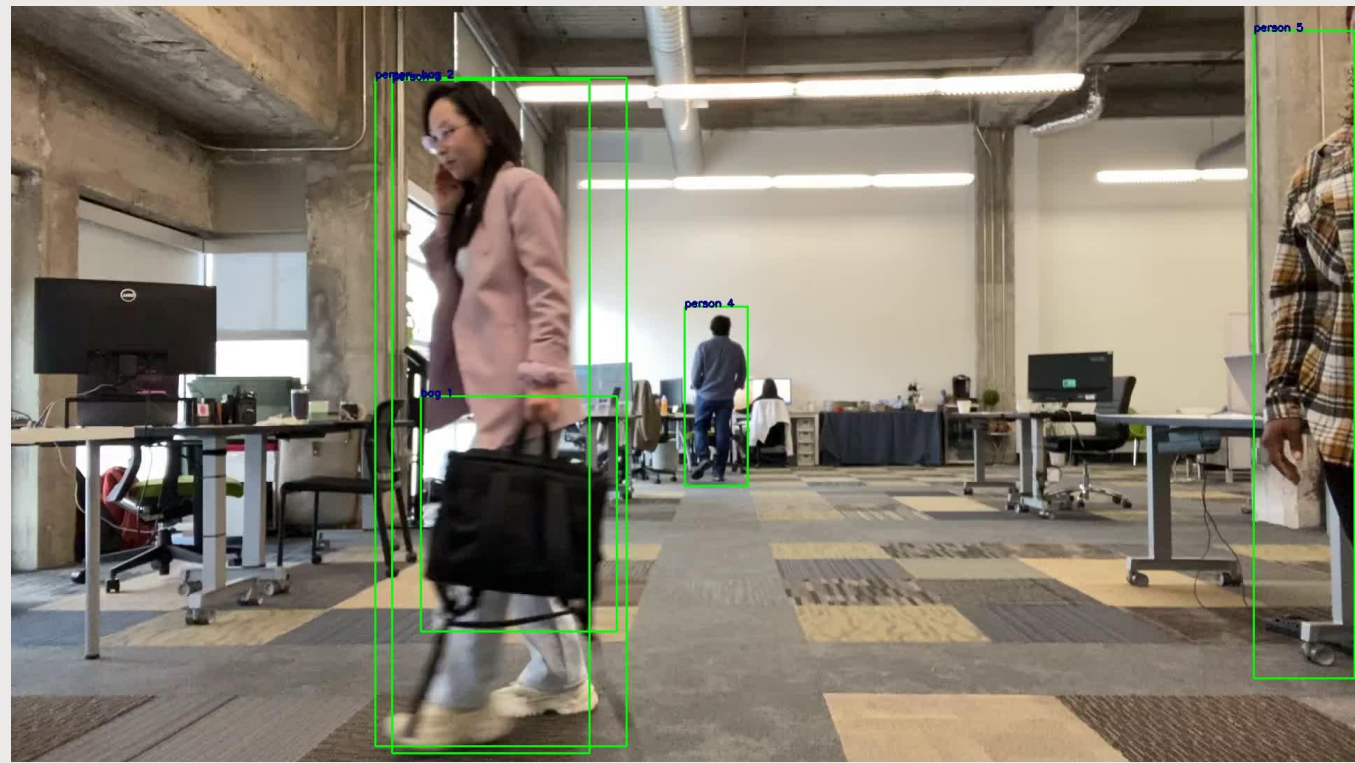
DevOps for Secure Deployment



Results @ 24.57 fps

All Classes:

- mAP50 : .896
- mAP50_95: .73
- Precision: .927
- Recall: .863



Making the world a safer place

- If a human can see it, we can train an AI to detect it
- Algorithms in testing at Sandia and TSL
- Solutions deployed at CBP
- We work with OEM Vendors and Government partners