Automating People Counting with Video Analytics

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The Challenge of Manual People Counting

- Manual counting is time-consuming and labor-intensive.
- It's prone to errors due to fatigue or distractions.
- Inconsistent counting methods can lead to inaccurate data.
- Real-time data collection is not feasible with manual methods.

Leveraging YOLO and Deep Learning

Experimentation

- YOLO (You Only Look Once) is a real-time object detection algorithm.
- Deep Learning models can identify and track people in video footage.
- Experimentation allows us to fine-tune the model for specific needs.

My Implementation with Live Video Input

We implemented a system that:
- Takes live video input from a CCTV camera.
- Detects and tracks people using a YOLO-based deep learning model.
- Counts the number of people entering and exiting predefined zones.
- Periodically logs the count data to a text file.

Conclusion

- Automates people counting, saving time and resources.
- Provides real-time data for better decision making.
- Can be integrated with other systems for further analysis.
- Accuracy can be improved through continued experimentation.