MS-CALID: a Context-Aware Local Infrastructure Detection and Monitoring System

Rares Folea **Andrei Vatavu**

Faculty of Automatic Control and Computers
University Politehnica of Bucharest

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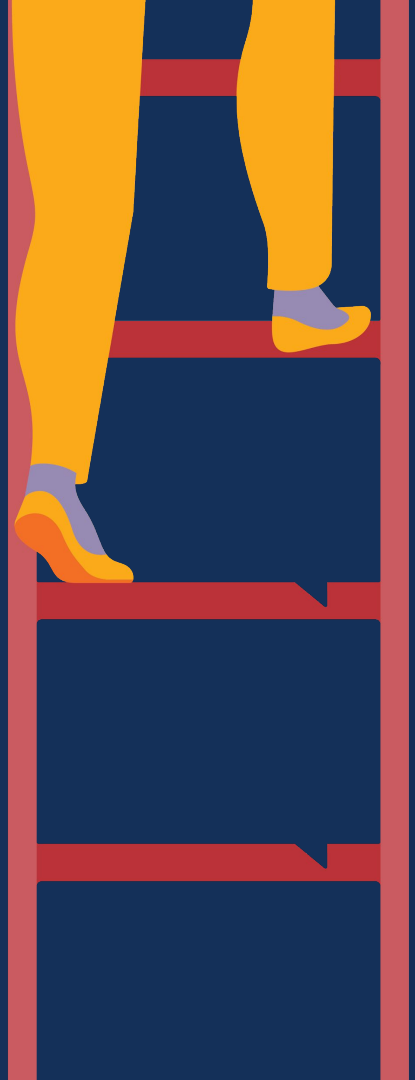
Our intelligence is what makes us human, and AI is an extension of that quality.

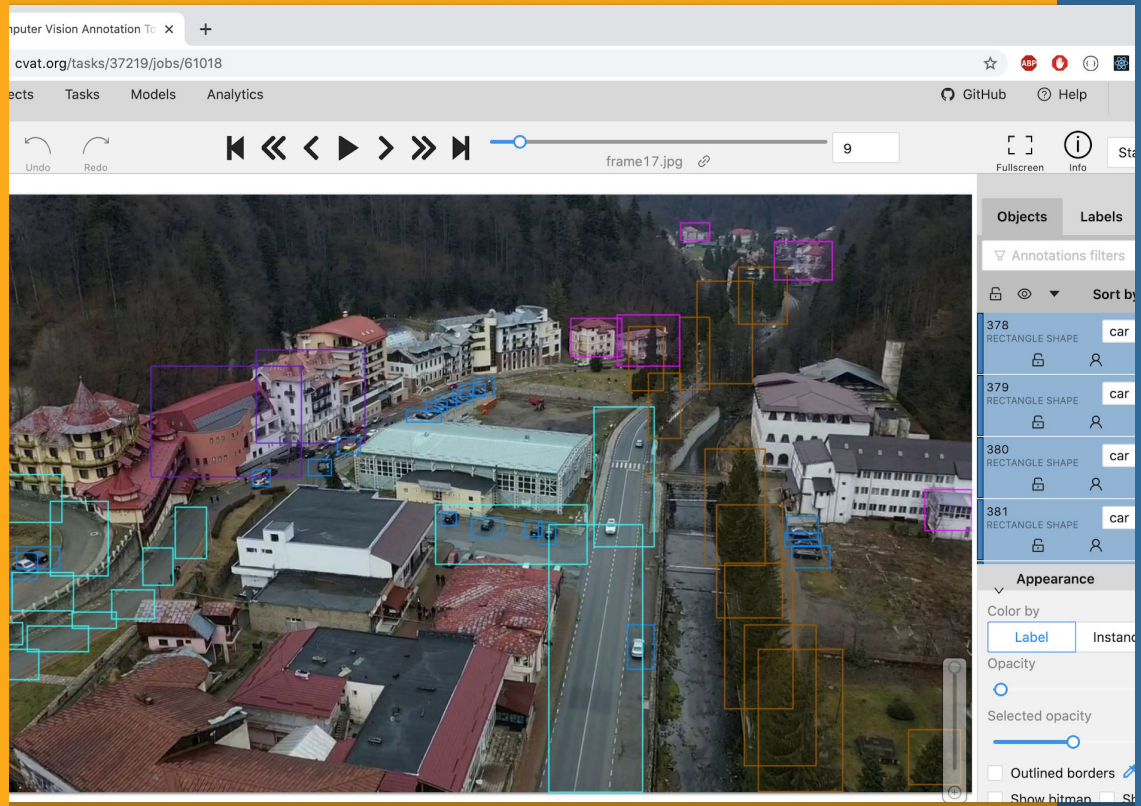
Yann LeCun
Professor, New York University



MS-CALID

Aims to be an automated software system for local infrastructure detection and monitoring built on top of YOLOv4.

Capable of detecting: households, houses, administrative buildings, hotels, religious entities, public roads, number of cars, alleys and parks, vegetation and offer live monitoring solutions such as notifications on traffic values



MS-CALID

- Trained on a custom labelled dataset consisting of hundreds of aerial frames obtained from the region of **Slanic-Moldova, Bacau, Romania**.

Road, alley and cars detection

Object Tracking

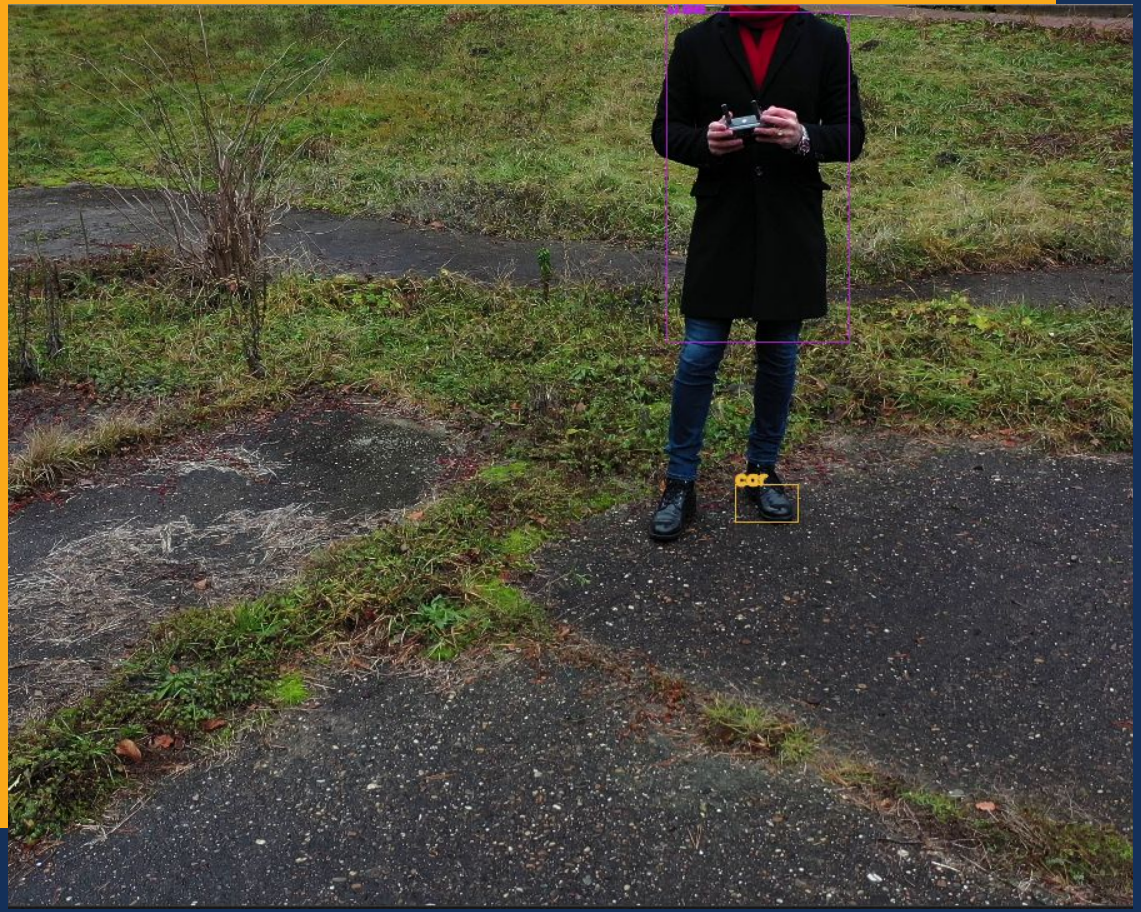
Object detection

Performance

24h	Training time on a **Nvidia 1060 6 GB**
6000	Total trained epochs
3251	Labelled objects
9 FPS	Live processing performance
99.35% mAP	High accuracy performance

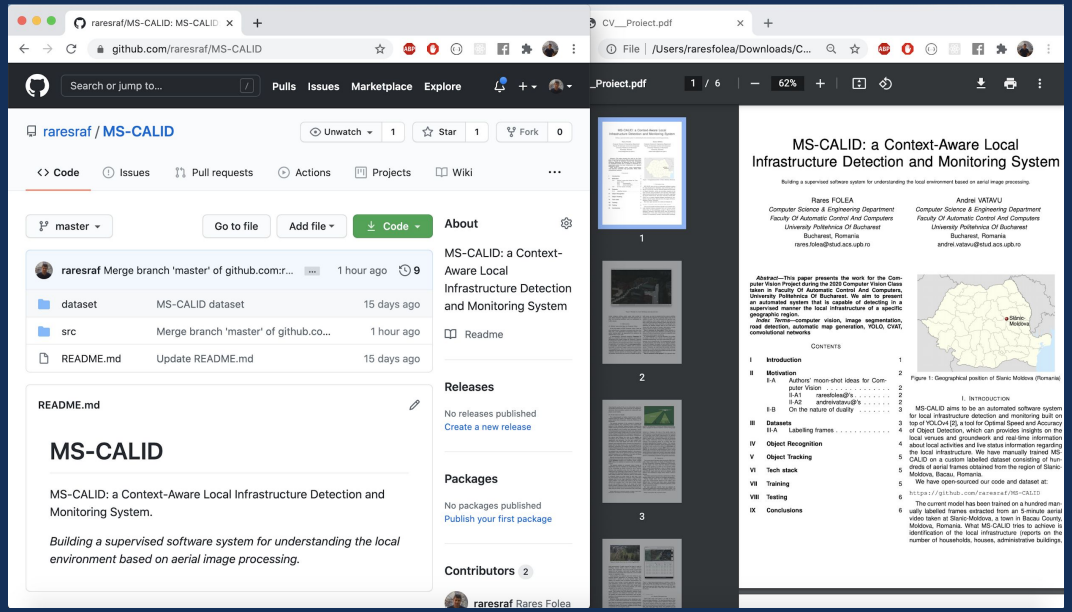
Takeaways

1. Fast and Real Time Detection
2. High accuracy
3. We are still far away from solving the problem of Computer Vision.



Reason for Takeaway 3.

Thank you!



Follow MS-CALID development:

https://github.com/raresraf/MS-CALID/