Beyond the Demo: Turning Computer Vision Prototypes into Scalable, Cost-Effective Solutions

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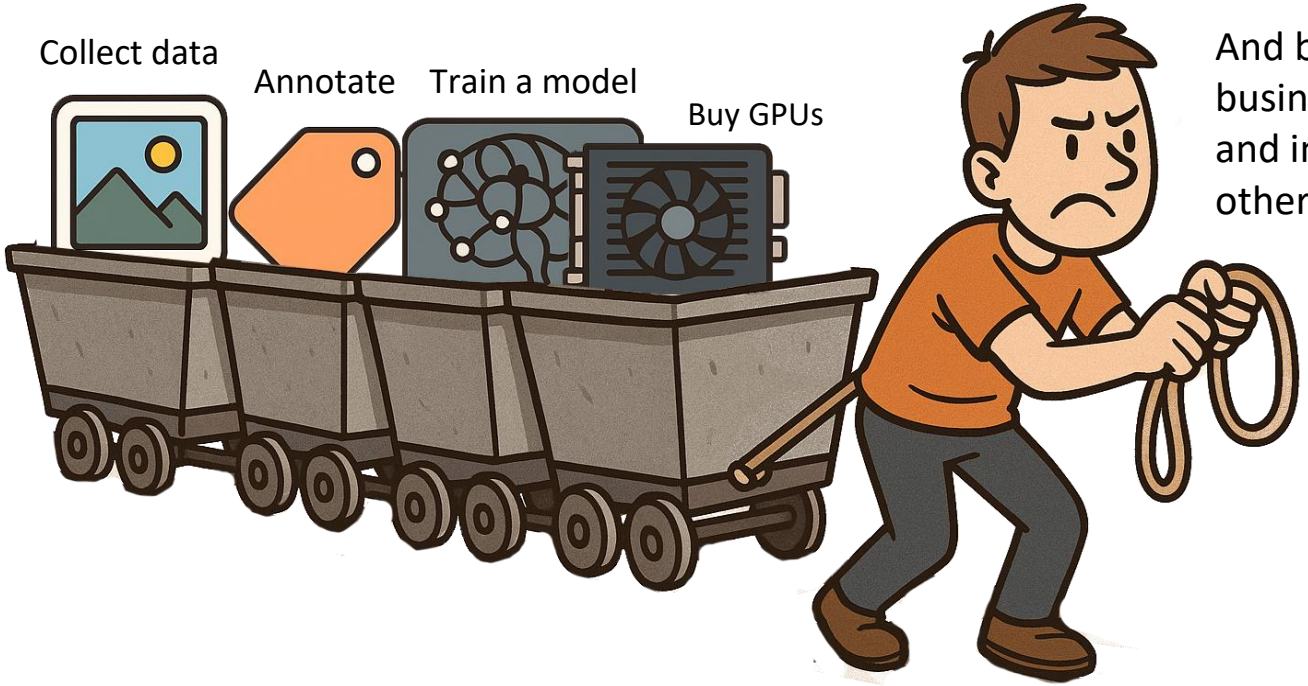
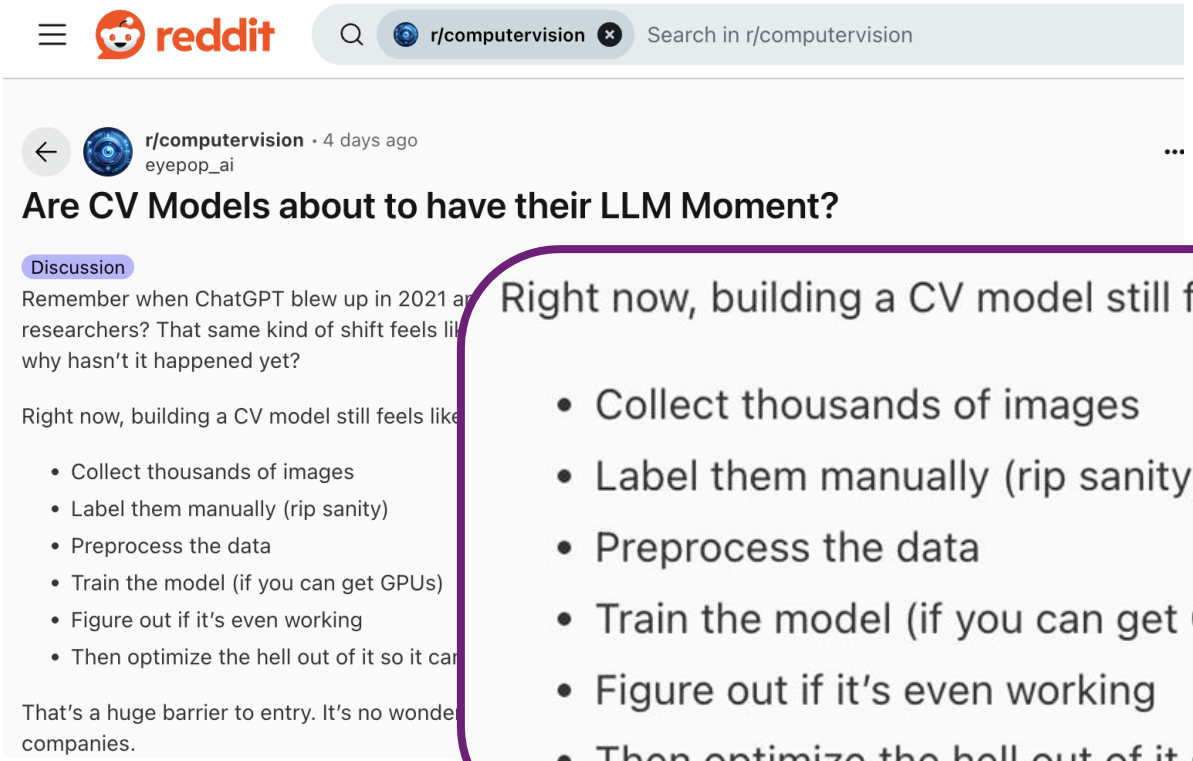
Picture This: You're About to Build Your First CV Application



And build & maintain the business logic software and integrations into other systems!

You Check out r/ComputerVision to Get Started

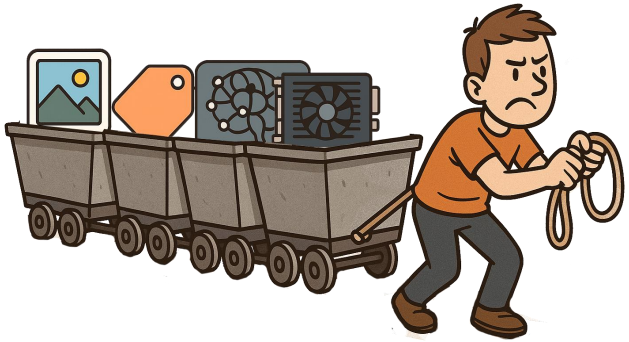


Right now, building a CV model still feels like a mini PhD project:

- Collect thousands of images
- Label them manually (rip sanity)
- Preprocess the data
- Train the model (if you can get GPUs)
- Figure out if it's even working
- Then optimize the hell out of it so it can run in production

Simple Use Case: Track License Plate Numbers

- Train or find a license plate detection model
- Crop license plates
- Run OCR on the cropped license plate



It’s Actually 3 CV Applications!

- Train or find a license plate detection model
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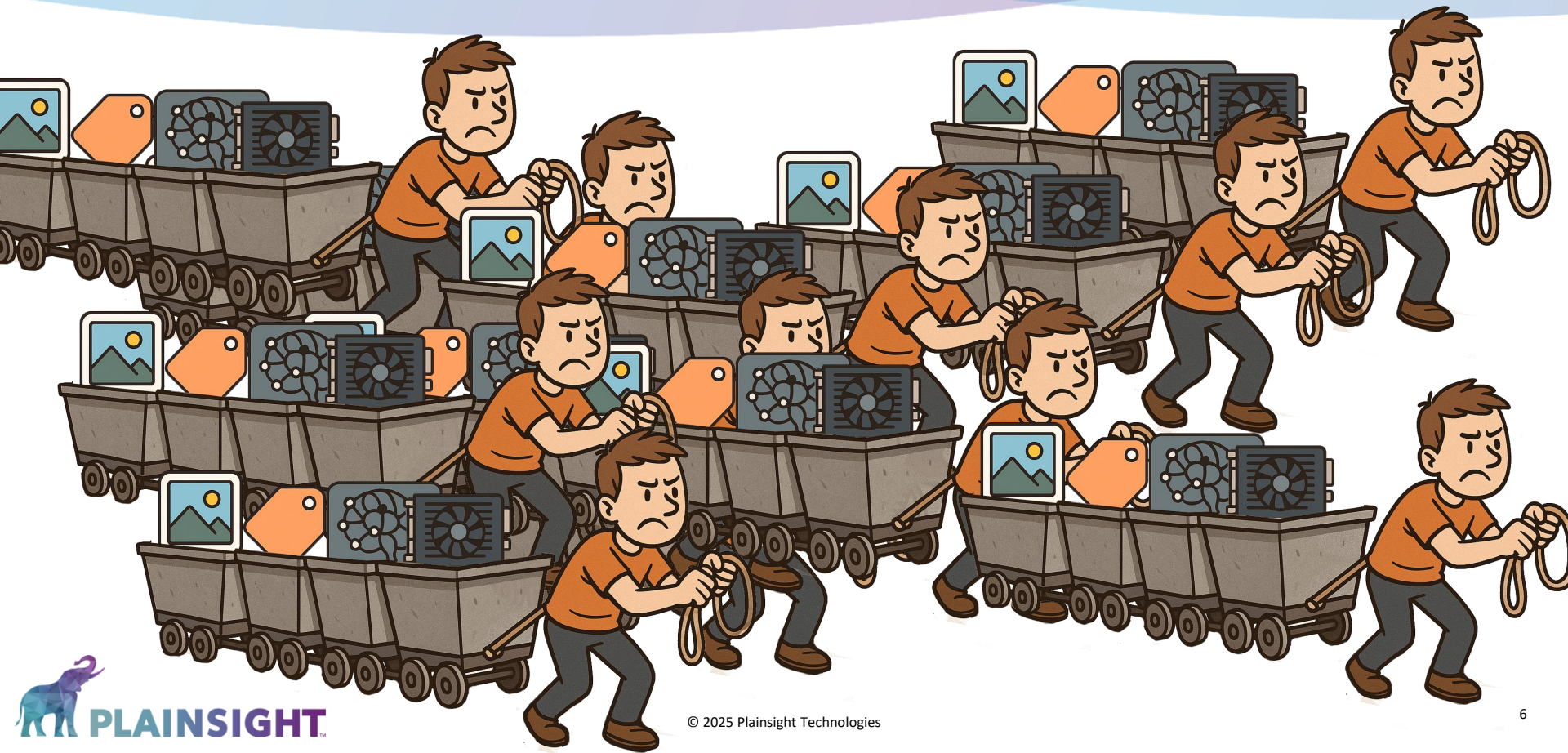
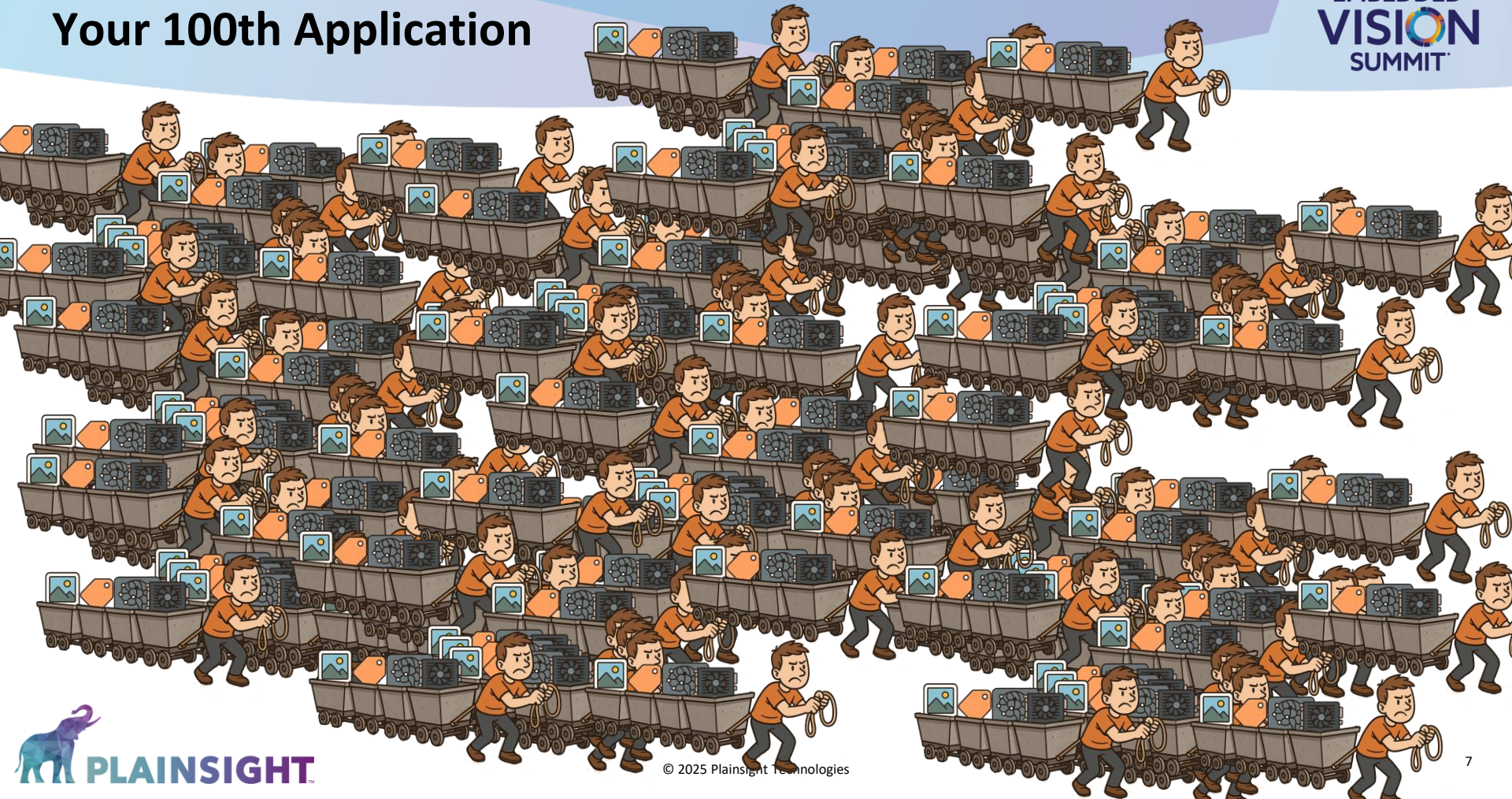
Your 10th Application



Your 100th Application

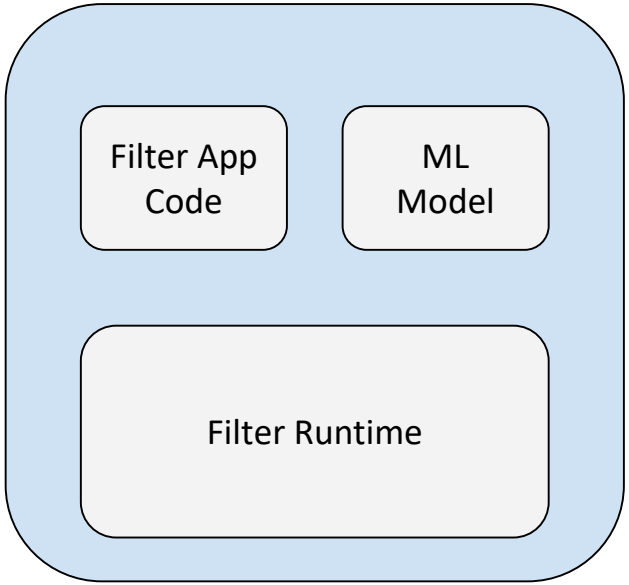


Your 100th Application

How do I…

- **Maintain** every model has to be maintained, even as it drifts?
- **Scale** projects without hiring more engineers?
- **Reuse components** like OCR and face detection in other apps?
- **Control costs** by maximizing hardware utilization?
- **Leverage** new technology in the rapidly evolving AI landscape?
- **Secure** software supply chain and no vulnerabilities?

Filters to the Rescue

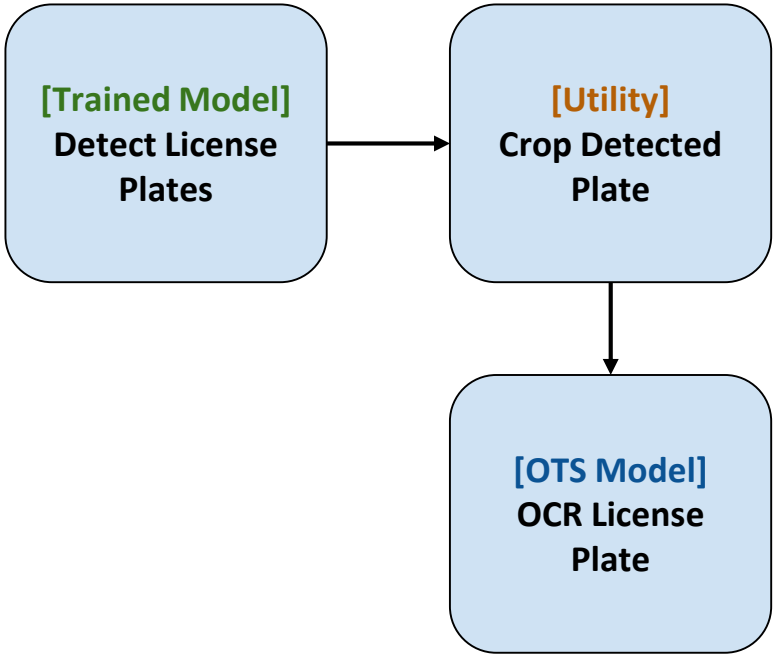


OpenFilter

- Filter is a **new universal abstraction** that defines a unit of vision workload
- Filters combine code + ML model each with separate lifecycles and supply chains
- Works with existing computer vision tools like PyTorch Models, OpenCV, and even YOLO.
- ML models are not necessary in all scenarios – traditional CV, utilities, tools for testing
- Open source implementation of Filter Runtime implemented in OpenFilter enabling anyone to build vision applications that scale

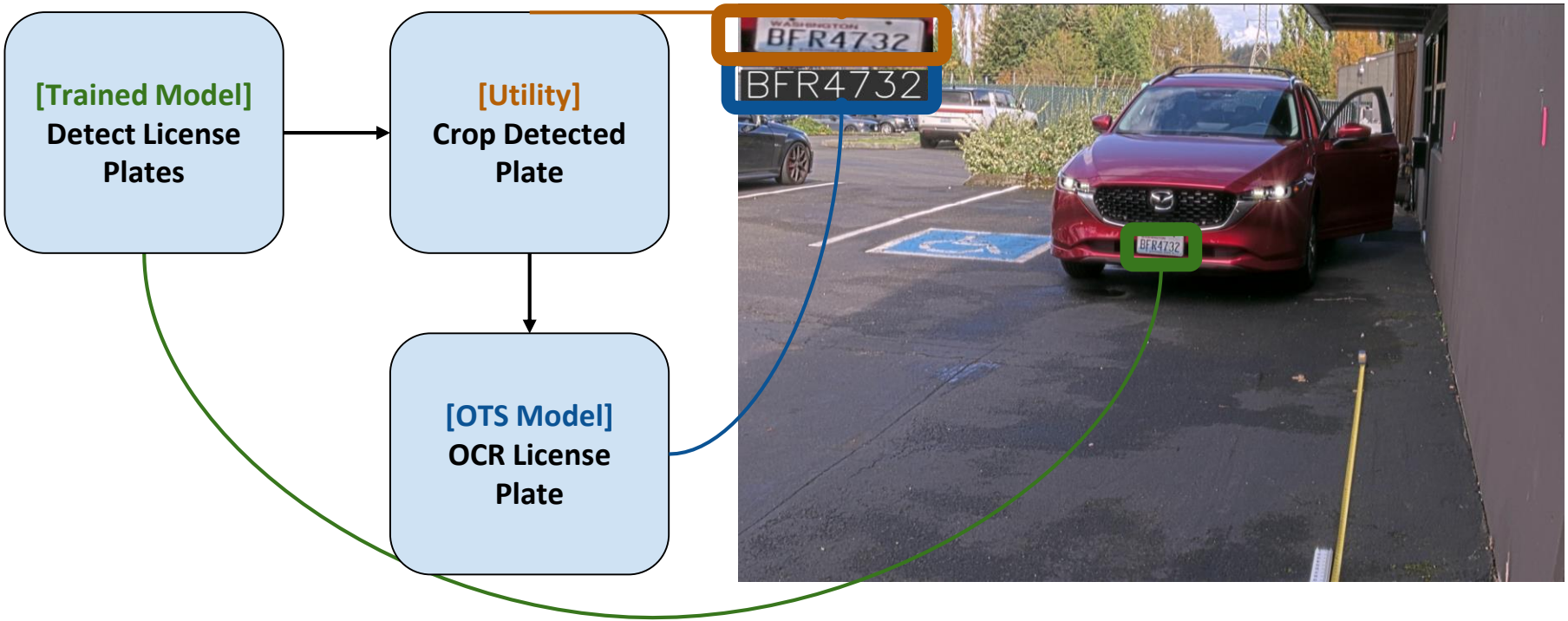
openfilter.io
Announced at the Embedded Vision Summit!

Track License Plate Numbers with Filters



Each box in this diagram represents an OpenFilter package.

Track License Plate Numbers with Filters



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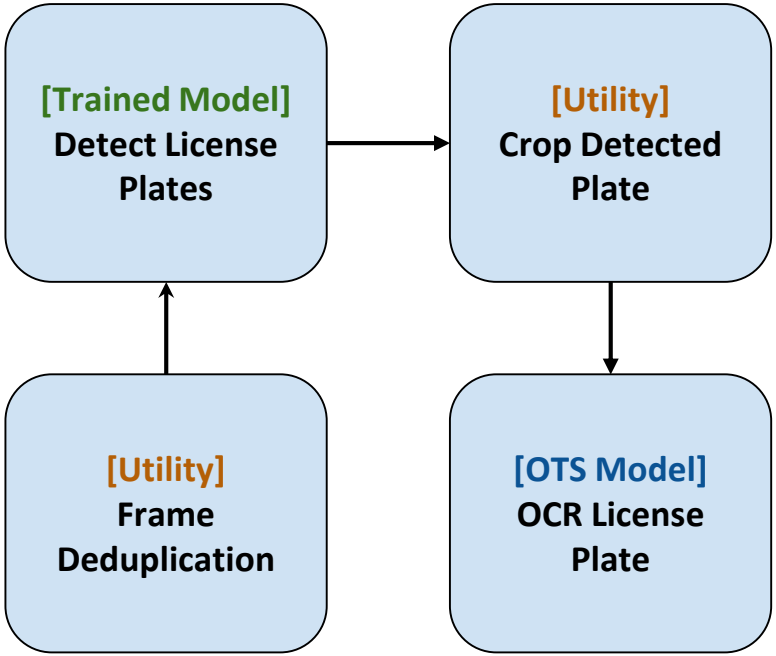

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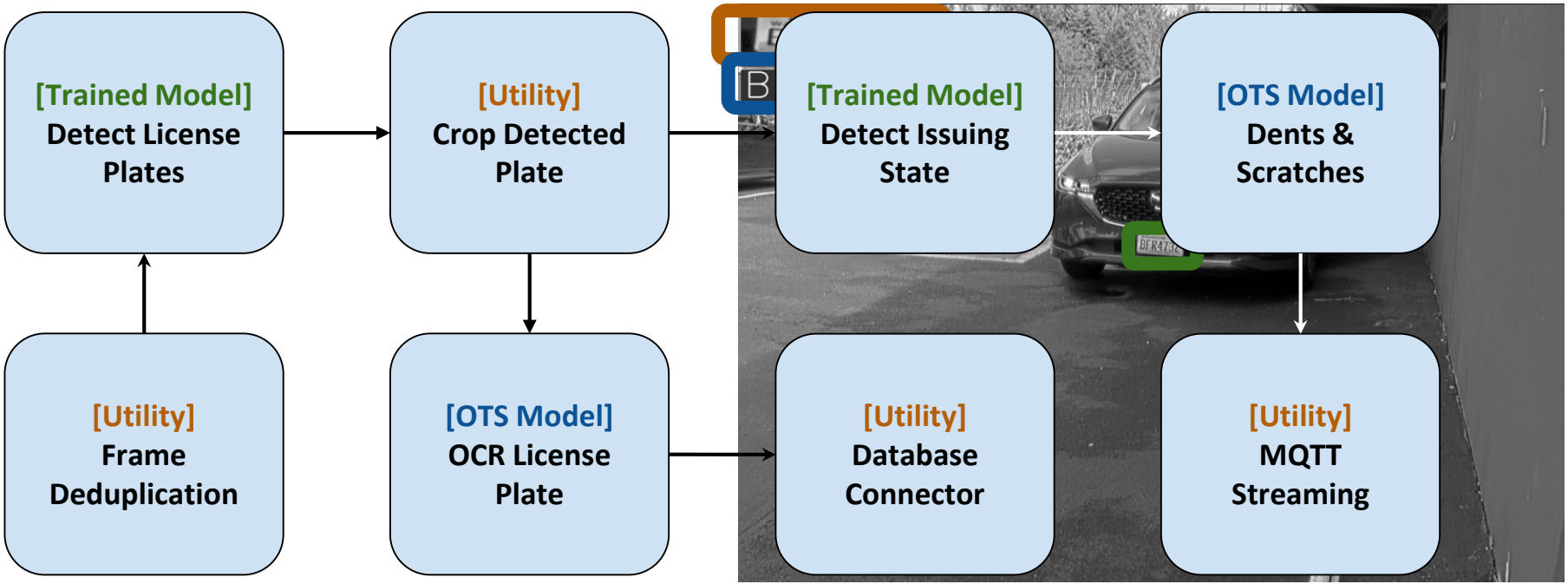

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We Provide Vision Capabilities for Many Businesses

Object Detection

Visual Measurement

Anomaly Detection

Optical Character Recognition (OCR)

Video Preprocessing

Event Detection

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Plainsight Vision Filter Pipelines

EMBEDDED VISION SUMMIT

Composable Computer Vision Data Infrastructure

VIDEO

IMAGES

CAMERAS

PLAINSIGHT

FILTER

FILTER

ORCHESTRATED FILTER EXECUTION

STRUCTURED OUTPUT DATA

TECHNOLOGY INTEGRATIONS

DATA DESTINATIONS

PLAINSIGHT

OpenFilter vs. Plainsight VisionStack

Ideal for proof of concept, academic, research, or hobbyist purposes.

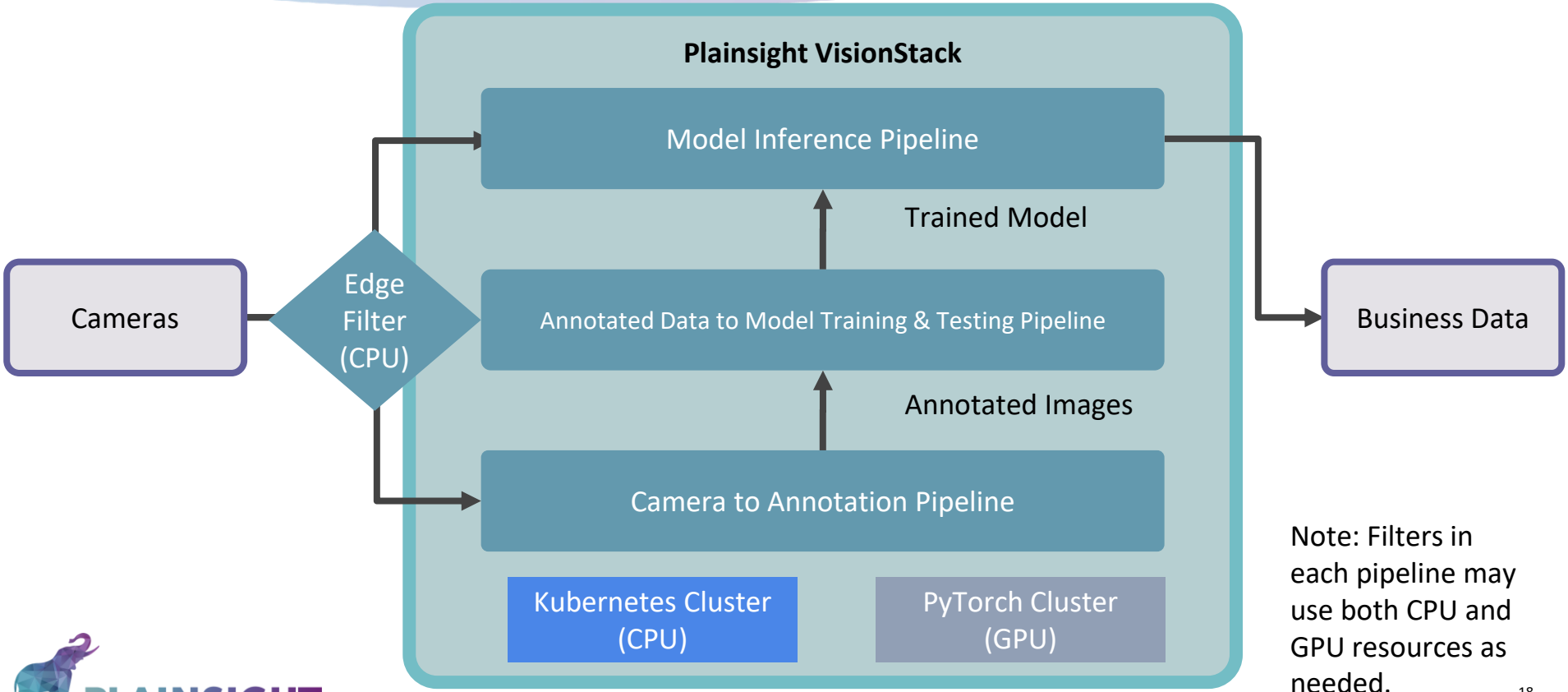
- Source available on GitHub
- Filter Runtime
- Filter examples with pre-trained models
- Python wheels format
- No support or SLA

Ideal for building production deployments and complex use cases.

- Commercially Licensed
- 0 CVEs (Chainguard)
- Custom models with active learning
- Plainsight Filter Library
- Supported Docker Repo
- Enterprise Support SLA

OpenFilter for Model Inference Pipelines

Orchestrating Parallel Filter Pipelines to Generate Business Data



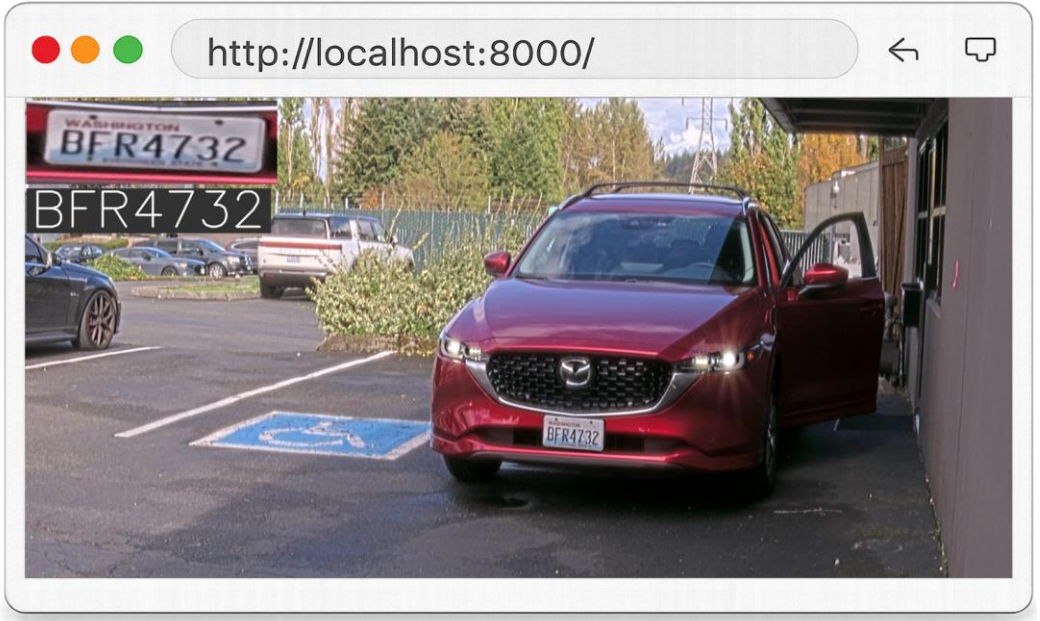
Note: Filters in each pipeline may use both CPU and GPU resources as needed.

Demo: License Plate Number Detection

Try OpenFilter Yourself!

OpenFilter Hello World

- git clone git@github.com:PlainsightAI/openfilter.git
- cd openfilter/examples/hello-world
- make install
- make run
- Visit http://localhost:8000



See Live Demos of OpenFilter and Plainsight at Booth 518

Filters Enable 1000s of Vision Workloads with Less Effort

Resources

- To learn more about the open source project, please visit openfilter.io or github.com/plainsightai/openfilter
- For more information on Plainsight, see plainsight.ai
- Visit our docs page at docs.plainsight.ai

Visit us at booth

#518

for a chance to win a lego set!

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THANK YOU

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