

The logo consists of a blue parallelogram shape pointing to the right. Inside the shape, the word "TRASEE" is written in white, uppercase, sans-serif font. A small "TM" trademark symbol is positioned to the upper right of the word.

**TRASEE**<sup>TM</sup>

**Computer vision experts**

Established in 2019

Our core team consist of:

**Mateusz Zimoch - CEO**

Machine learning consultant, software developer, coding instructor, robotics specialist.  
Graduate of two majors: Computer Science and Control Engineering & Robotics.  
Experience in Startups, delivering POC and MVP, finalist of US Navy competition RoboSub 2018.

**Piotr Zieliński - CTO**

Data scientist, computer vision consultant, software developer, programming tutor.  
Computer Science Ph.D. candidate (specialization: computer vision, deep learning, neural networks.  
Estimated time of thesis defense - fall 2023).  
Researcher and author of papers published in P2P-reviewed journals.  
Graduate of Computer Science and Control Engineering & Robotics.

**Senior Backend Developer / technology team lead**

Former: Clearcode, Biocam, Nagarro, Mühlemann & Popp Online Media AG.

**Senior Frontend Developer**

Former: Siemens Solution Engineer.

**Full Stack Developer**

**Head Of Business / Business Analyst**

Former: PM at Appfire (the Deloitte Technology Fast 500 North America Company).  
MBA from the Wroclaw University of Economics.  
10+ years of experience in business: distribution, e-commerce, IT, technology startups.

**UX Researcher / Specialist**

The team has a full range a competences to deliver complete software applications and might be quickly up-scaled depending on a scope of a given project. We have capability to attract and onboard ML and data scientists with academic background and software development practitioners with corporate experience.





# Technology stack

## Backend:

- Python
- FastAPI
- FFMPEG
- Rust

## Frontend:

- JavaScript
- NodeJS
- Vue
- Electron

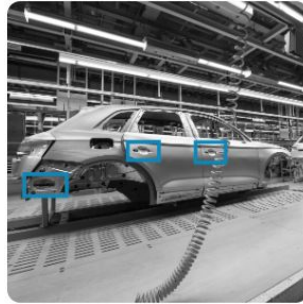
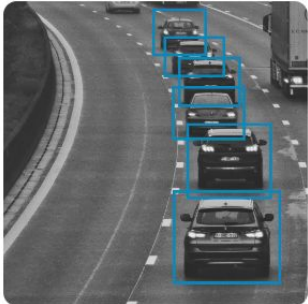
## Machine Learning:

- Pytorch
- ONNX
- GStreamer
- YOLO
- Direct ML

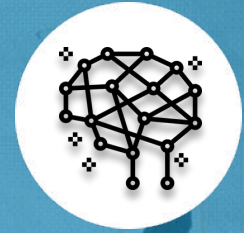
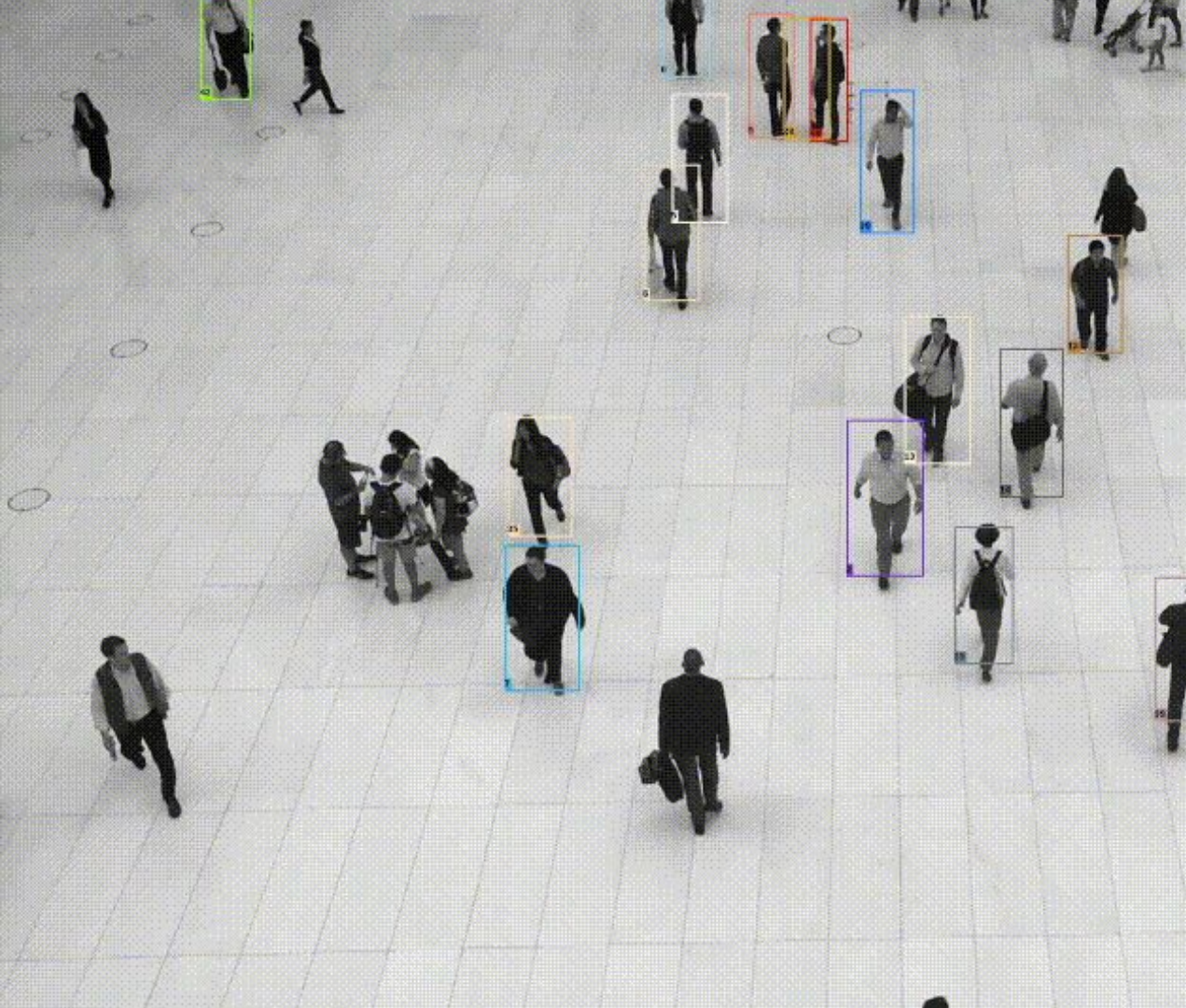
Projects implementation according to ASPICE standard at Level 2 (Managed) with a possibility of implementation up to ASPICE Level 5 (Innovating).

# Examples of use cases and applications:

- object detection, recognition, counting and classification;
- behavioural patterns recognition (movements);
- text and symbols reading and recognition;



- queue management,
- anonymization (face & license plates blurring),
- people counting, vehicle counting and classification;
- heatmaps,
- industrial inspections, defect detection,
- visual stocks control,
- zone violation alerts,
- microbe detection & classification,
- animals counting and detection,
- map data enrichment,
- collision detection.
- LIDAR data enrichment.



Industry-leading AI algorithms process images in real time.

Accuracy far greater than skilled personnel at lower cost.

# Case studies



## Research & Development POC: Queue waiting time estimation system for major Polish airport

**Problem:** waiting at the airport constitutes a large proportion of the entire journey time, On intercontinental flights, many passengers arrive too early and experience stress being afraid to miss the plane; airport crew often faces bottlenecks, clogging traffic at the gates, surges in passenger flow

**Challenge:** to build a forecasting and early warning system based entirely on monitoring cameras

**Solution:** queue estimation system based on CCTV cameras, with a dashboard for airport staff

### POC

Timeline: 6 months

Budget: 45 000 EUR net

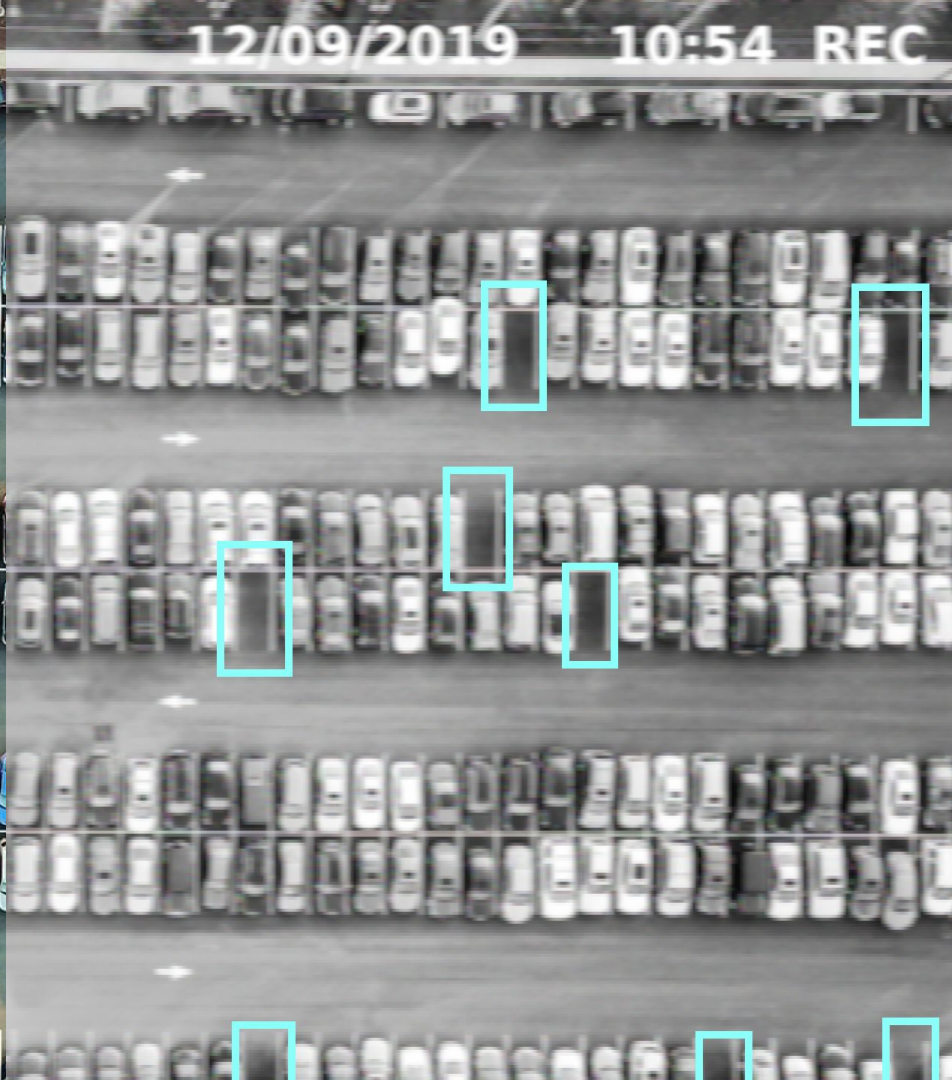
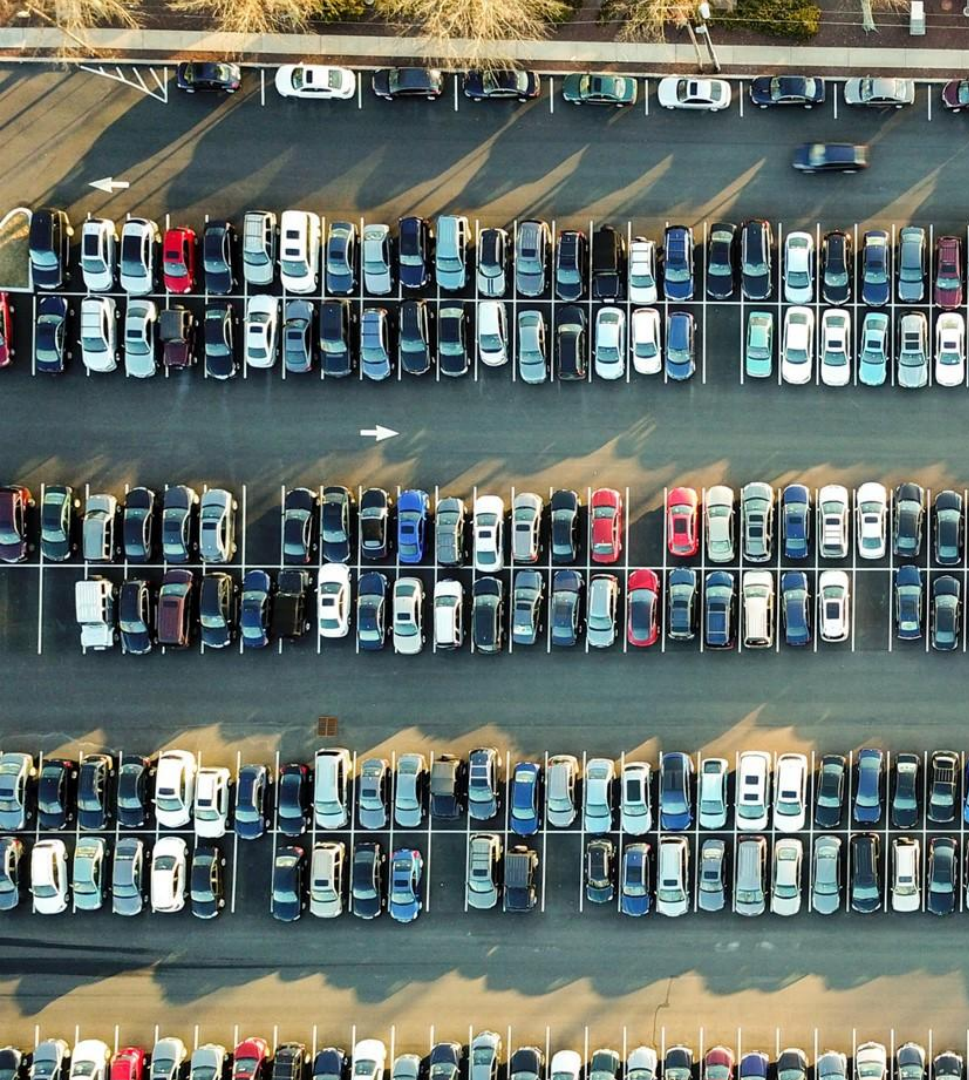
Technology stack: Python, Flask, PyQT, Prometheus, Redash, Docker, PyTorch

### Full implementation (\*planned for 2023-2024)

Timeline: 12 months

Budget: 260 000 EUR net

Scope: estimation engine based on computer vision, GUI dashboard for airport staff, push notifications for airport staff and travellers, a graphical dashboard for travellers, integration with other airport systems





**POC: Commuters counting for city transport company**

City bus operator needed data on the number of commuters waiting on the bus stops depending on the time of the day  
cost-effective solution based on the image from existing video monitoring infrastructure, people counting in designated zones.

Timeline: 2 months

Budget: 7000 EUR net

**Feasibility study: using AI for animals condition monitoring**

Service: startup from animal breeding industry is looking to validate their idea from the technology point of view

Challenge: asses feasibility of animal health condition diagnosis based on its movements recorded on a camera

Timeline: 3 weeks

Budget: 2000 EUR net

Result: delivering to the startup founders a report on the feasibility of developing their ideas based on current state of computer vision technology



# Product: desktop application



Desktop application for face and license plate blurring in photos and videos using AI machine learning algorithms.

## **POC**

Timeline: 3 months

Budget: 15 000 EUR net

## **Full application**

Timeline: 18 months

Budget: 310 000 EUR net

Gallio PRO is an AI-based anonymization software for video and photo materials working fully on-premise. It is used by railway operators and construction companies from Europe, North America and Asia.

The app has a graphical user interface and is highly valued by customers for speed, accuracy and ease of use.

It is shipped as Windows and Mac OS application.



Windows 10+



MacOS 10.14+

## How it works

Software needs to be installed on the computer device. GUI with a simple user flows allows to anonymize files easily.

User uploads files and after choosing settings and processing these are exported in the anonymized version to the disc.

← Back

1 Upload files 2 Set goal 3 Select folder

Next →

Drag & drop files here

+ Browse computer

File type	Name and path	Duration	Size	Actions
Video	Kimia-zarifi-x4J_92kJBoY-unsplash.mp4 C:\Users\kkoznisko\Downloads	00:00:10	635.94 kB	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\comp\Downloads	-	578.94 kB	Delete
Image	Pictures2.png C:\Users\comp\Downloads	-	556.94 kB	Delete
Video	video33.mp4 C:\Users\comp\Downloads	00:00:10	371.94 kB	Delete
Video	Kimia-zarifi-x4J_92kJBoY-unsplash.mp4 C:\Users\comp\Downloads	00:00:10	371.94 kB	Delete
Image	3908b6c.jpg C:\Users\comp\Downloads	-	371.94 kB	Delete
Zdjęcie	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\comp\Downloads	-	735.94 kB	Delete
Video	Kimia-zarifi-x4J_92kJBoY-unsplash.mp4 C:\Users\comp\Downloads	00:00:10	371.94 kB	Delete
Video	videocompressed.mp4 C:\Users\comp\Downloads	00:00:10	555.94 kB	Delete

Application info

gallio

Please wait, processing in progress...

Files: 14 (Processed 5 of 14)

File type	Name and path	Duration	Size	Processing status	Actions
Video	Kimia-zarifi-x4J_92kJBoY-unsplash.mp4 C:\Users\kkoznisko\Downloads	00:00:10	371.94 kB	Processed	Delete
Video	Kimia-zarifi-x4J_92kJBoY-unsplash.mp4 C:\Users\kkoznisko\Downloads	00:00:10	371.94 kB	Processed	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Processed	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Processed	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	In progress 18.7% Time remaining: 00:00:38	Pause Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Waiting	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Waiting	Delete
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Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Waiting	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Waiting	Delete
Image	Jessica-favaro-973vRak-llM-unsplash.jpg C:\Users\kkoznisko\Downloads	-	371.94 kB	Waiting	Delete

Application info

gallio


It just takes 3 steps to anonymize files!

Gallio

Files list Kimia-zarifi-x4J\_92kJBoY-unsplash.mp4 X

Undo

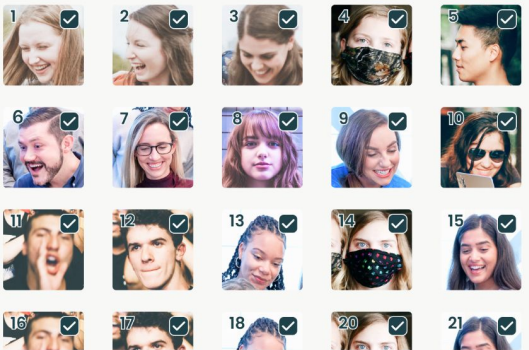
Preview



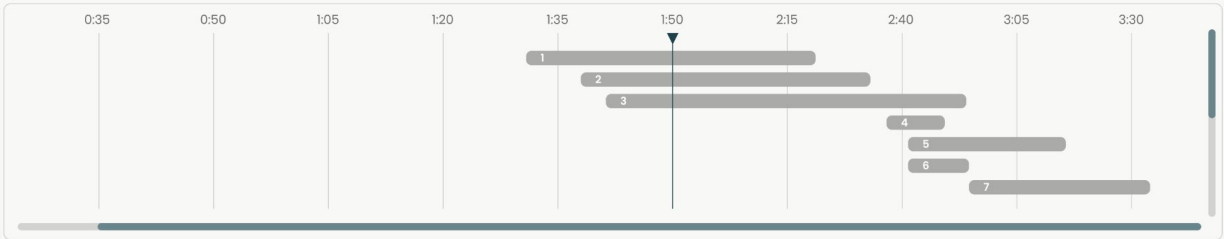
To remove blur, uncheck selected objects.

Faces 24 License plates 0

Uncheck all



1:50 1:39 2x



gallio PRO

Save the edited file to your computer. Save now ↓

## Selective anonymization feature

The selective anonymization mode allows to selectively remove blurring from faces and licence plates in videos and photos. The feature is easy to use and doesn't require any technical skills.

## Payment system

Gallio PRO is integrated with the Stripe payment system, which allows customers to choose the most convenient option and plan - a one-day Professional version and a monthly and annual subscription with a discount are available.

Users can conveniently pay with their payment card, and later in the Stripe system have access to the subscription and the option to change or cancel it.

### Pricing & Plan

<b>DEMO</b> <b>Free</b> Face and license plates anonymization Unlimited images and videos processing Watermark Reduce resolution to max 720p For personal use For private and non-commercial use. <a href="#">DOWNLOAD NOW</a>	<b>ONE DAY PROFESSIONAL</b> <b>€7.99</b> Face and license plates anonymization Unlimited images and videos processing No watermark Metadata support Preserves audio and image quality 4K / 8K support 24 h license For business and commercial use. <a href="#">BUY NOW</a>	<b>PROFESSIONAL</b> <b>€99</b> per month <b>Monthly</b>   <b>Annual</b> Face and license plates anonymization Unlimited images and videos processing No watermark Metadata support Preserves audio and image quality 4K / 8K support Monthly renewable license For business and commercial use. <a href="#">SUBSCRIBE</a>	<b>ENTERPRISE</b> Professional package + Dedicated support 8K+ support 1 year or more license span Payment via bank transfer Custom features on demand For large business and government clients. <a href="#">CONTACT US</a>
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## Face anonymization

Gallio PRO precisely detects and blurs objects even in dark photos and videos and not fully visible faces.



## License plates anonymization

Efficiently anonymizes license plates making them illegible.  
Works with license plate patterns from all around the world.



Gallio PRO has been trusted by:





**Let's talk about your  
current challenge!**

WEB PAGE

[www.trasee.io](http://www.trasee.io)

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