asya

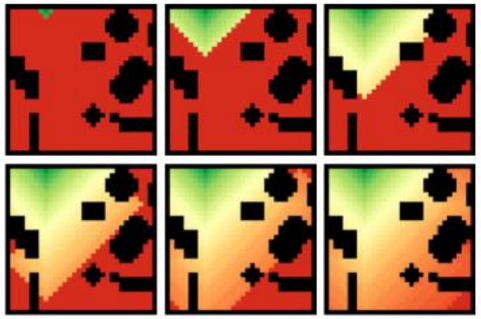
ting AI, software and design of the future.

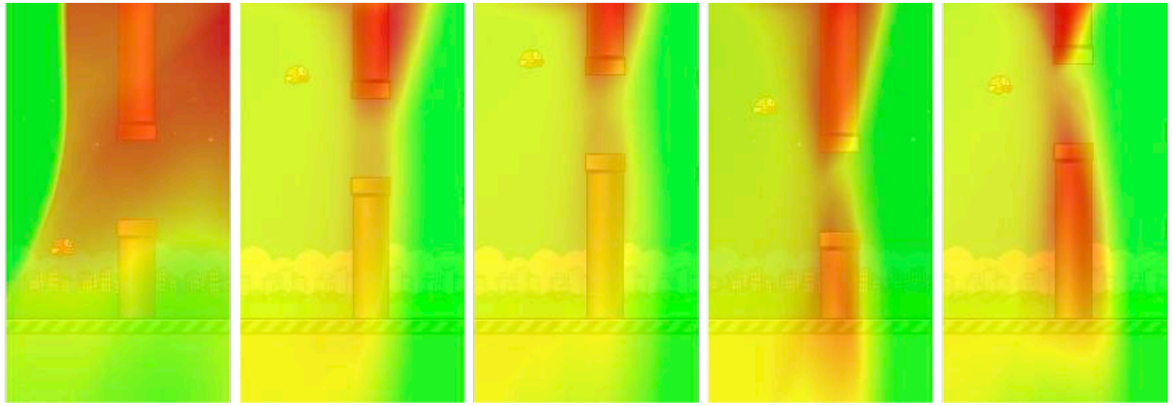
Look into the future

Team

30+ employees
Award-winning scientists and UX designers
20+ scientific publications

https://www.asya.ai/publications/

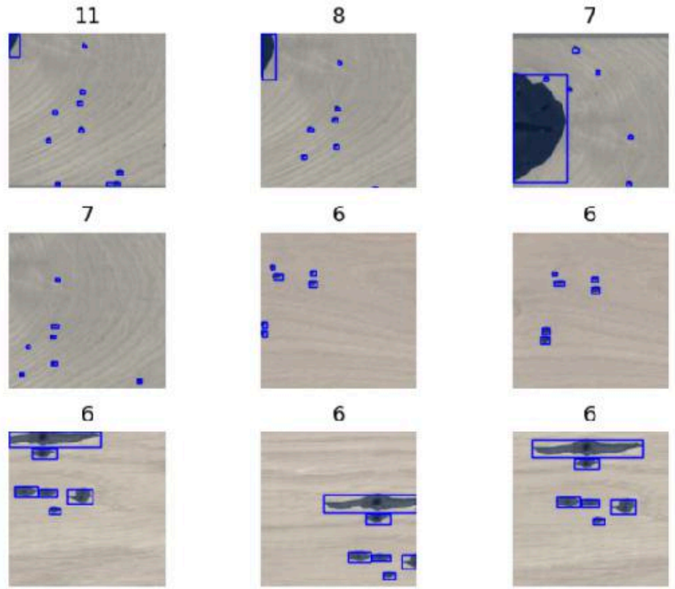




Over 20+ academic research project

Dr. Evalds Urtans and his team at asya.ai has been leading BSc., MSc. and PhD. Students research projects for over 8 years in the domain of deep learning. Especially in Deep Metric Learning and zero-shot learning.

Project #1 – Detection of defects in wooden planks for bandsaw solution.

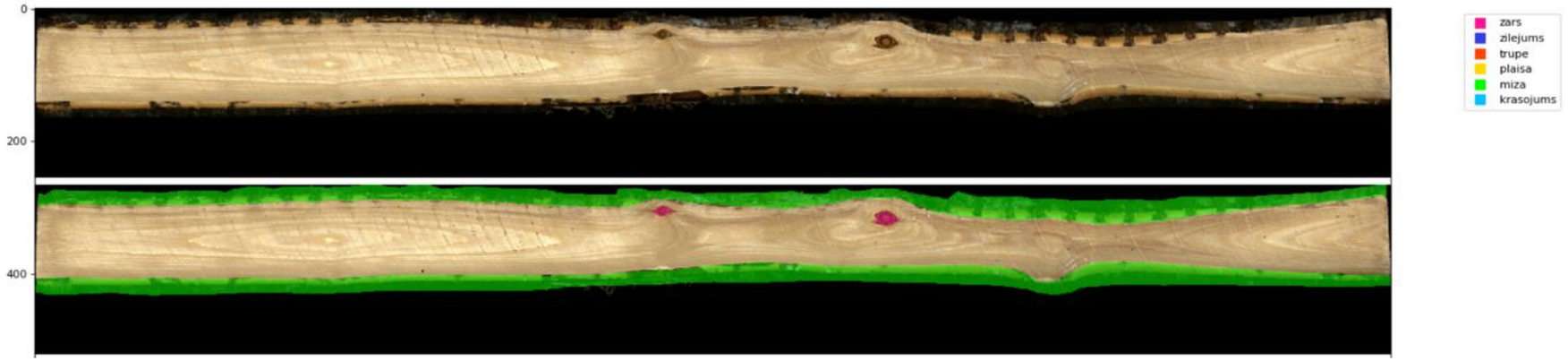


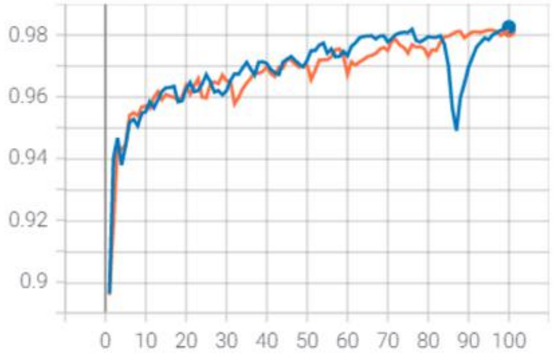
Successful project in cola with medium size company to obtain high-precision AI models for detecting defects in wooden planks to automatically plan cutting and manufacturing processes. **70-99% precision to various classes of damage**.

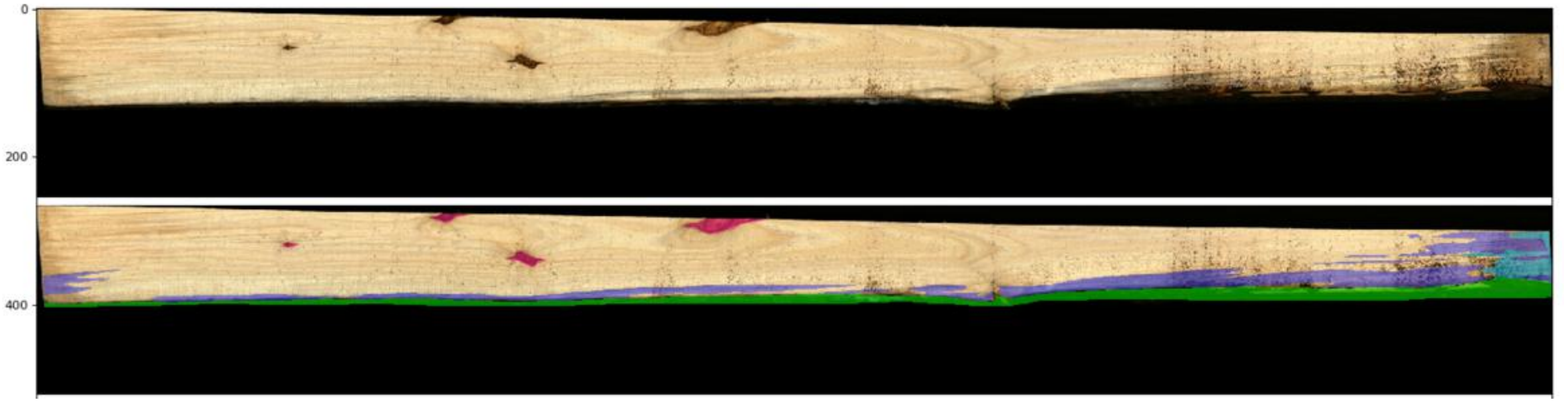
Published BDAI 2022

Partner: http://www.zippyvision.com

Project #1 – Detection of defects in wooden planks for bandsaw solution.





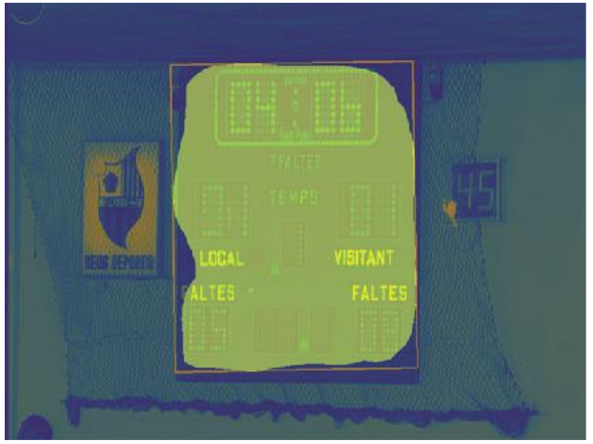


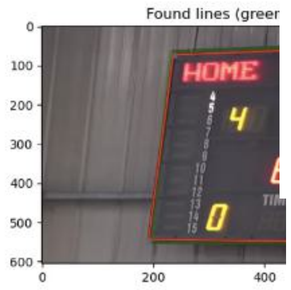
Project #2 – Detection of damage for car rental service using photos.

Successful project to segment different types of defects in cars using mobile phone after returning them to the rent and before re-selling. Especially difficult problem, because even human labelers cannot distinguish between reflections and dents. **0.88 IoU for scratches, dents, chips, dirt, rust**.
Partner: http://www.scopetechnology.com

Project #2 – Detection of damage for car rental service using photos.

Project #3 – Detection of tabloid for live TV score tracking

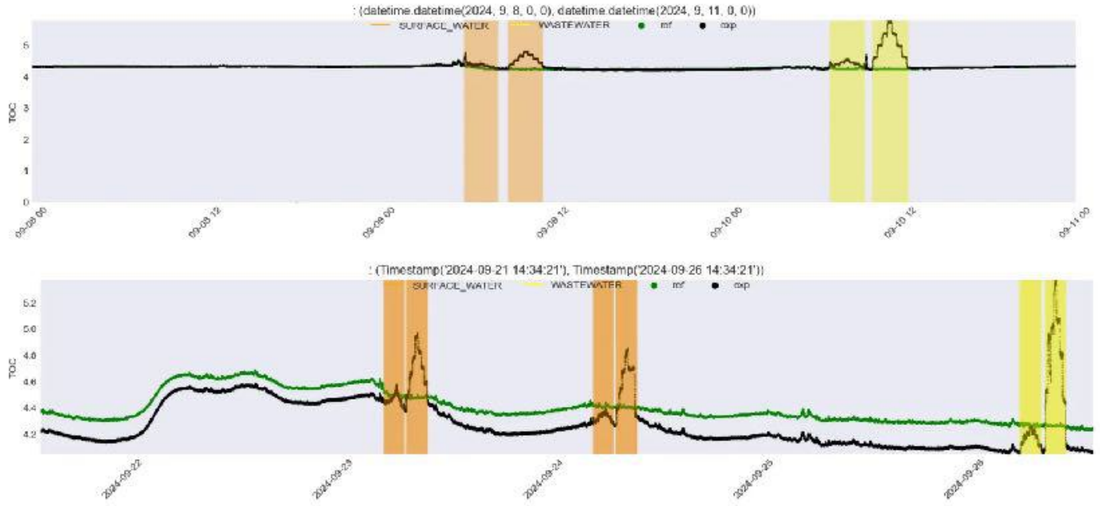




Successful project to segment complex situations of tabloids with different obstructions like nets, people, etc. Task was to automatically detect tabloid and transform it to orthogonal projection. We were able to train such model from less than **500 samples and achieve accuracy over 95%**

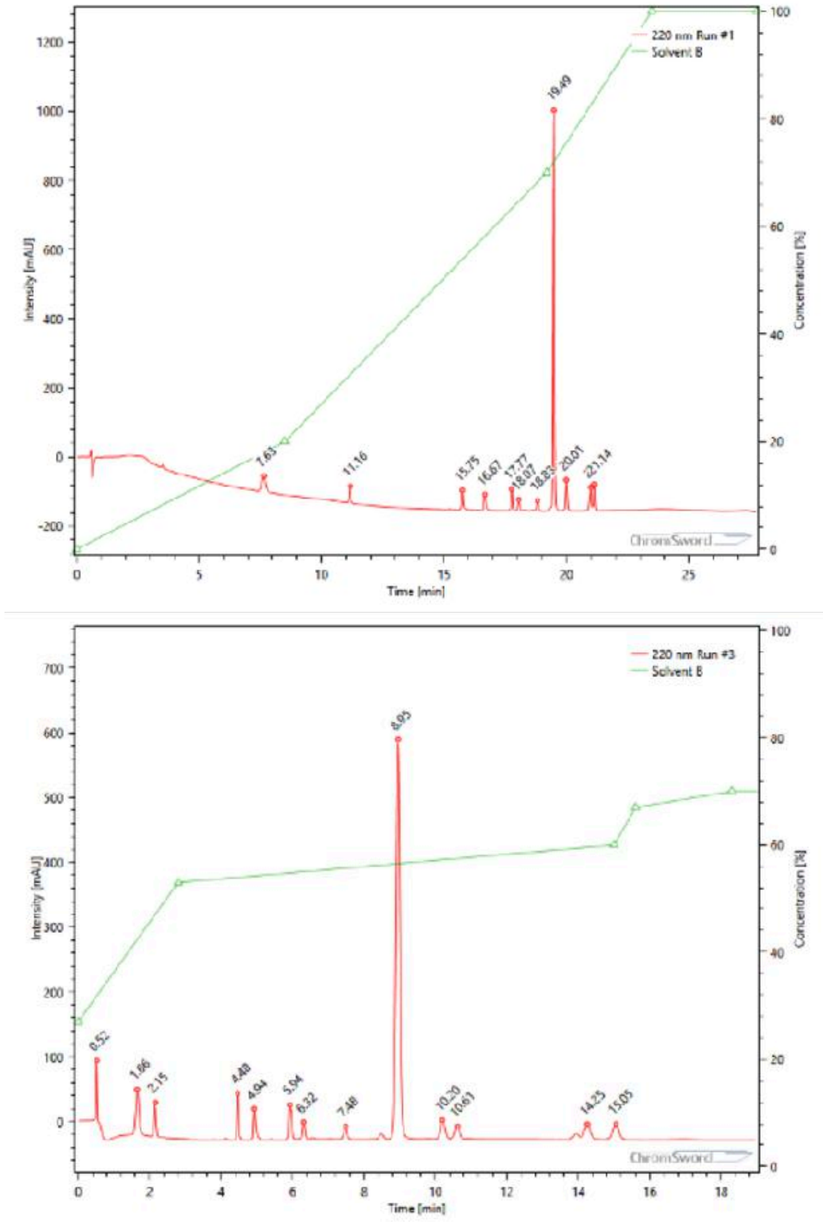
Partner: http://sportacentrs.com

Project #4 – Water quality detection using sensor readings in real-time



Waterson is an AI-powered water quality monitoring system that predicts biological contamination in drinking water using data from standard physicochemical sensors. The technology operates like a weather forecast system, analyzing conditions to predict contamination risks before they occur.
Partner: https://waterson.lv/

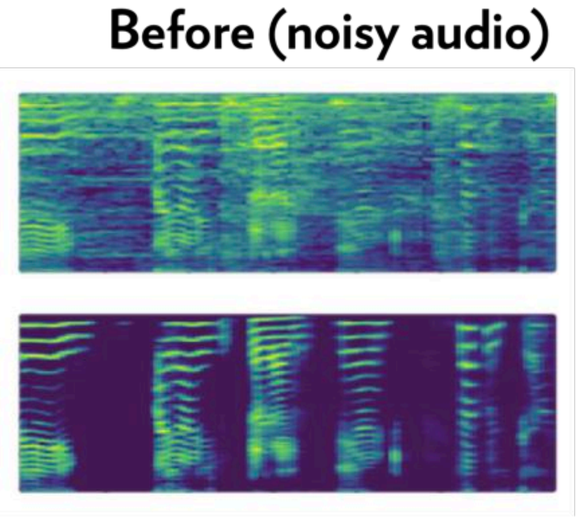
Project #5 – Solvent gradient optimization in analytical chemistry Chromatography



AI models for finding solvent gradients to separate compounds in chromatography for analytical chemistry. Automatically executes experiments to reduce human resources from **2 weeks to 2 hours** and achieve high-quality separation for unknown substances.

Partner: https://www.chromsword.com

Project #6 – Speech enhancement for microphone stystem.



Successful project with one of the largest microphone manufacturers in the region to denoise the audio signal in real time using deep learning models. Models can remove noises like: Sounds of speaker's feedback, Keyboard clicking, Traffic, Sounds of children in background, Other mechanical noises.

asya.ai PESQ: 2.595

krisp.ai PESQ: 2.266 (funding 17m USD)

Partner: https://www.catchbox.com