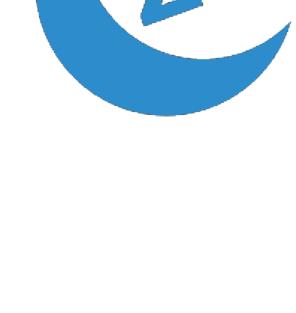




Bringing safety to another level with Edge-AI



Why do you need AlertWatch

100,000 Police reported crashes

1500 fatalities

71,000 injuries

40% of drivers admit they have fallen asleep driving



Why should you choose AlertWatch

Reliability

Low power

Modularity

Alertness management

Passive and non-intrusive design



AlertWatch development

Three AI models

Face Detection - provided by Hailo

Face Landmarks detection - Custom made with PyTorch

Speech recognition - C++ implementation of OpenAI's whisper

Custom made Linux OS images

Buildroot

Yocto

Python codebase with NodeJS server communication

Openly available on GitHub



AlertWatch Challenges

Computing power constraints

Hailo's translation complexity

Models pre-post processing complexity



GitHub Page

Hardware



BEDROCK R7000 Basic



Proprietary Fanless design



High performance

Hailo-15 SOM (System on Module)



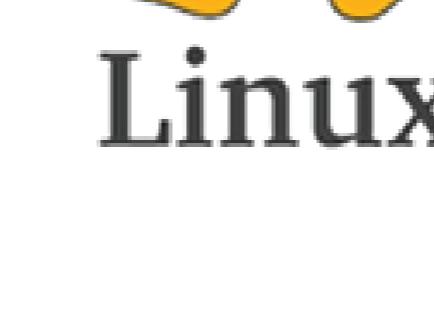
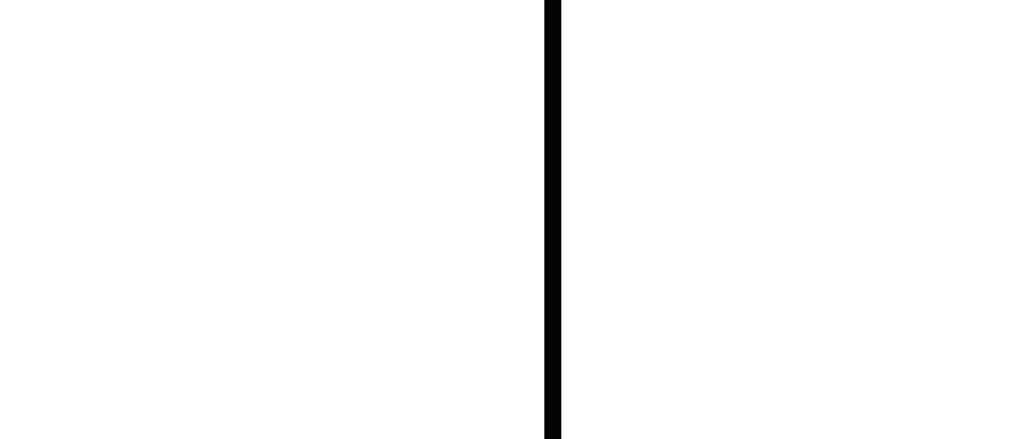
Efficiency at the Edge Vision



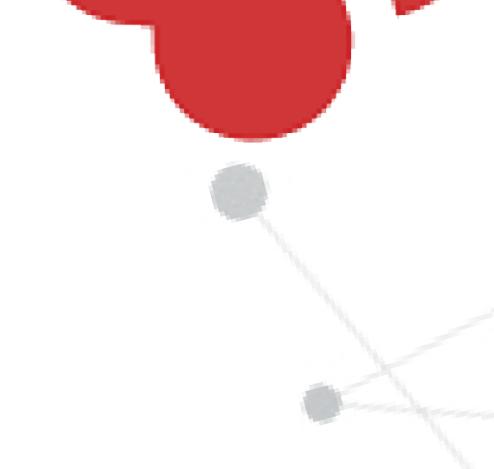
Power efficiency



Custom built Operating-Systems



Linux



SolidRun

Embedded Edge Computing

המכללה האקדמית להנדסה בכרמל
בראודה