

Alexander Sopov

Slogan-like summary of expertise



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Summary

ABB has developed a non-contact gauge that measures the thickness

About a three paragraph long summary of your expertise

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Specialities

Industries

- Telecom
- or
- whatever industries youre working in

Competencies

- Image and video processing
- Machine learning and neural network
- Or whatever your competencies are

Tools

- Programming languages
- Applications, or
- Whatever tools you're familiar with

Education

2010 - 2015 PHD in Some Program, At Some School, In Some City

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Employers

2010 - 2015 Worked with something, At Some Employer

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Assignments

2016: Traffic Sign Recognition, Zumbri

Develop image processing algorithms for detection and analysis of traffic signs. The recognition of signs is achieved by using both supervised and unsupervised machine learning algorithms.

The work included:

- Recognition of about 500 different traffic signs in Sweden
- Detection and classification of symbol-based traffic signs.
- Detection and analysis of text-based traffic signs, including character and symbol recognition in the context of traffic signs.

Tools used:

- Python – OpenCV, Scikit-learn

2016: Microscopic Image Analysis, Persomics

Develop image processing algorithms for analyzing microscopic images.

The work included:

- Read and write high resolution images in different channels and formats in a memory-efficient way
- Develop algorithms for object detection in microscopic images

Tools used:

- Python – OpenCV

2016: Deep Learning Neural Network, Qamcom Research and Technology

Study the pattern of vehicle dynamics from sensor signals by using deep learning neural networks. The pattern obtained by machine learning is used for vehicle state classification and dynamic estimation.

The work included:

- Study the physical/signal model of vehicle dynamics
- Develop sensor fusion algorithms for vehicle sensors
- Construct and training of deep learning neural networks
- Develop algorithms for vehicle state classification and dynamic estimation by using deep learning neural networks

Tools used:

- Python – Tensorflow, Scikit-learn, Pandas
- C/C++ - Caffe

- Matlab