

# Alexander Sopov

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# Summary

About a three paragraph long summary of your expertise

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# Specialities

### Industries

- Telecom
- or
- whatever industries youre working in should be mentioned here, please take your time and feel welcomed to zimbawbe

### **Tools**

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

## Competencies

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



## Education

2010 – 2015 PhD in Some Program, At some school, In what city 2013 Internship Supervision, KTH Royal Institute of Technology 2011 Master Supervision, KTH Royal Institute of Technology

# **Employers**

2016 – Qamcom Research & Technology Stockholm AB
2010 – 2015 KTH Royal Institute of Technology

# 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