

# IAROSLAV MELEKHOV

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## EDUCATION

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### University of Oulu

*January 2015 - Present*

Ph.D. Computer Science

*Thesis advisor:* Juho Kannala

Courses: Deep Convolutional Neural networks

### St.Petersburg Electrotechnical University "LETI"

*April 2014*

Ph.D. in location and radar navigation

*Thesis advisor:* Vladimir K. Orlov

*Theme:* "Analysis and development algorithms of joint information processing in relative navigation"

### St.Petersburg Electrotechnical University "LETI"

*June 2010*

M.S. in Radio Engineering

*Thesis advisor:* Alexander B. Sergienko

*Theme:* "Non-coherent digital modulation classification in fading channels"

Overall GPA: 4.95 (5.0)

### St.Petersburg Electrotechnical University "LETI"

*June 2008*

B.S. in Radio Engineering

*Thesis advisor:* Denis I. Vezhenkov

*Theme:* "The review of methods of classification OFDM"

Overall GPA: 4.89 (5.0)

## EXPERIENCE

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### Research and Development Center Protei

April 2014 - December 2014

*Software researcher & developer*

*St.Petersburg, Russia*

- Redesigned a traffic management platform with deep packet inspection (DPI) capabilities;
- Implemented leaky (token) bucket algorithms to control peak and average data rate.

### JSC VNIIRA

September 2011 - April 2014

*Software developer*

*St.Petersburg, Russia*

- Aircraft trajectory prediction module on the basis of the current flight state, environmental conditions and AC characteristics was developed from scratch.

### JSC Vector

September 2009 - April 2011

*Software developer*

*St.Petersburg, Russia*

- Developed DQPSK, GMSK demodulator;
- Implemented Viterbi equalizer using MATLAB/C++.

### St. Petersburg Electrotechnical University LETI

September 2006 - July 2009

*Research intern*

*St.Petersburg, Russia*

- Processing of OFDM signals, methods of synchronization;
- Non-coherent classification algorithms of digital signals in fading channels were implemented.

## PUBLICATIONS

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- **Relative coordinates estimation under correlated measurement errors**  
Y.Melekhov, V.Orlov
- **Comparative analysis of multi-sensor fusion algorithms of relative distance estimation**  
Y.Melekhov, V.Orlov
- **Performance of multi-sensor fusion algorithms of relative distance estimations with missing measurements**  
Y.Melekhov, V.Orlov
- **Output distance estimation in relative navigation of air vehicles for non linear measurements of coordinates**  
Y.Melekhov, V.Orlov

## TECHNICAL STRENGTHS

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<b>Programming Languages</b>	C/C++, Matlab, Java, Python
<b>Libraries &amp; Frameworks</b>	stl, boost, Caffe, Qt
<b>Concepts</b>	OOA/OOD (Design Patterns), Multithreading/Multiprocessing
<b>Systems</b>	Unix (Centos), Arch, OpenSUSE
<b>Publishing</b>	LATEX, TEX

## HONORS AND AWARDS

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- Internship at Dresden University of Technology

## LANGUAGES

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- Fluent written and verbal English
- Basic knowledge of German
- Fluent in Russian