

# Nikolay Degtyarev

## **Address:**

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Laboratory of Data Analysis  
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## **Research Interests:**

Computer vision, Classifiers combining, Pattern Recognition, Digital Signal and Image Processing, Data Mining.

## **Education:**

### **Ph.D. Student**

July 2011 - Present  
Tula State University  
Major: *Computer Science*  
Research Advisor: Dr. Oleg Seredin ([oseredin@yandex.ru](mailto:oseredin@yandex.ru))  
Working on: *Detectors Combining in Computer Vision*

### **M.S. Student , *Summa cum laude***

Sep.2009 – June 2011  
Tula State University  
Major: *Computer Science*;  
Thesis title: *Face detectors combining*  
Overall GPA 4.0 / 4.0

### **B.S. Student , *Magna cum laude***

Sep.2005 — June.2009  
Tula State University Tula, Russia  
Major: *Computer Science*;  
Diploma work title: *Comparative testing of Face detection algorithms*  
Overall GPA 3.858 / 4.0

### **High school Student**

2003-2005 Tula state school #25 Tula, Russia,  
Overall GPA 3.7 / 4.0

## **Hobbies and Interest:**

Swimming, Teaching, Reading, Solving some math problems, photography

## **Skills:**

Russian, English Languages  
C/C++, C#, .Net platform programming ,Delphi, JavaScript, Prolog  
Matematica 5/6/7, MatLab  
Established skills in Algorithm Development, good writing technique, collection of information.  
High creativity person

### ***Work experience:***

July 2008 - September 2008

#### **Laboratory of Data Analyzes/ Tula State University**

Research Intern at Face Futures detection project

*Description:* Developing and processing comparative tests of current groundwork and projects in this subject. Communication with Private Companies .

October 2007 – December 2007.

#### **Developer Express Inc. Russian Department.**

Support Engineer at CodeRush and Refactor! Pro team.

*Description:* Assisting customers with their codes and problems, writing technical documentation, test new version of CR & R!Pro.

### ***Assistantship:***

**Feb.2007-Jun.2007** Tula State University; Laboratory of Data Analysis.

Supervisor: Dr. O.S. Seredin; Co-worker: I.V. Krestinin

*Project:* Face detection algorithm (SiFinder) in statical images and video streams.

*Description:* My part of this work was catching, pre-processing image from video sources (for example: Web-cams) and results visualization;

**Sep.2008-Present** Tula State University; Laboratory of Data Analysis. Supervisor:

Dr. O.S. Seredin; Co-workers: I.V. Krestinin, , S. Moslakova

*Project:* Improving face detection and recognition algorithm (SiFinder v.2).

*Description:* My part of this work is researching dependencies in Biometric system, planning future comparative tests, communicate with private company about research material (such as face detection algorithms, face databases), developing new methods of face detectors combining, collecting face and non-face databases and developing pre-filtration for internal face detection algorithm;

### ***Research Projects:***

- **Detectors combining** (the most active)
- Comparative testing and **combination** of Face detection algorithms
- New methods of classifiers' combinations
- Decision rules combining

### ***Award:***

“Success-Full Hundred 2007, Energy”, Federal Agency of Education and Special Company “Success-Full Hundred”. See <http://www.uspex100.ru>

### ***Participation:***

- Microsoft Computer Vision School, MCVS 2011
- 16<sup>th</sup> Estonian Winter School in Computer Science
- Microsoft Data Structures and Algorithms School, MIDAS, 2010
- 10<sup>th</sup> International Conference “PATTERN RECOGNITION and IMAGE ANALYSIS: NEW INFORMATION TECHNOLOGIES”
- 8<sup>th</sup> International Conference on Intelligent Information Processing (IIP-2010)
- 4<sup>th</sup> International Conferences on Image and Signal Processing 2010
- 15<sup>th</sup> Estonian Winter School in Computer Science
- 14th Conference on Mathematical Methods of Pattern Recognition
- Microsoft Research Summer School 2009 for High Performance and Parallel computing for computational science and engineering

***Publications (in English):***

1. Degtyarev N., Seredin O.: Comparative Testing of Face Detection Algorithms // In A. E Imoataz et al. (Eds.): ICISP 2010, LNCS 6134, pp. 200--209, Springer, Heidelberg (2010)
2. Degtyarev N., Seredin O.: Effect of Eyes Detection and Position Estimation Methods on the Accuracy of Comparative Testing of Face Detection Algorithms // 10th International Conference on Pattern Recognition and Image Analysis: New Information Technologies (PRIA-10-2010). St. Petersburg, December 5-12, 2010. Conference Proceedings, Volume 2, Politechnika, 2010, pp. 261-264.
3. Degtyarev N., Seredin O.: A Geometric Approach to Face Detector Combining // In C. Sansone, J. Kittler, and F. Roli (Eds.): MCS 2011, LNCS 6713, pp. 299--308, Springer-Verlag, Heidelberg, 2011

***Invited Talks:***

- “*What does it mean to be a student?*” Tula State University, Talk to prospective student of department of Cybernetics, March 2011
- “*Comparative Testing of Face Detection Algorithms*”, 15<sup>th</sup> Estonian Winter School in Computer Science, March 2010

***References:***

Available on request