

# CURRICULUM VITAE

**Ivan Martynov**

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Date of birth: 12.04.1982, id: 120482-165E

Citizenship: Finland, Russia

**Objective:** I would like to have my analytical skills applied in the gaming world. The data analysis for defining the best heading directions for the modern games is a nice area for the professional growth. I am interested in sharing experience with the skillful team of Rovio experts and to test my competence as well as to enrich my skills.

## Education:

**Jun 2012 – present:** *Lappeenranta University of Technology, Faculty of Technology, Technomathematics and Technical Physics Department.*

*Major and minor subjects:* Image processing, feature detection (e. g., clouds and shadows in geographic images). In my work I have used different approaches towards locating various properties of terrains:

- Analysis of spectral values of satellite images: applicable to the detection of clouds, water, vegetation and other terrain areas. Mostly used with Landsat satellite imagery;
- Calculating shadows using the information about terrain elevation and the solar angles. Applicable to elevation geographical models, for example, Shuttle Radar Topography Mission (SRTM) data.

The methods allow us to evaluate which areas in any given terrain are to appear umbrous at a given time point.

Doctoral degree in Technology (tentative time of completion: December 2017).

**Sep 2006 – Sep 2008:** *Lappeenranta University of Technology, Faculty of Technology, Technomathematics and Technical Physics Department.*

*Major and minor subjects:* Academic writing in English, information technology, statistical analysis in modeling, evolutionary computation, etc.

Supervisors: Prof. Heikki Haario and Adj. Prof. Tuomo Kauranne. Master's thesis: *Computing the persistent homology of range images with alpha shapes*. The work is related to the processing of 3D point clouds with the analysis of the structure: depending on the points define the homology of the data. The devised methods can be used to compute Betti numbers and thus estimate the number of components in the point cloud, as well as the number of 1D and 2D holes.

**Sep 2002 – Jun 2008:** *Petrozavodsk State University, Faculty of Mathematics, Topology and Geometry Department.*

*Major and minor subjects:* Mathematical analysis, combinatorics, functional analysis, topology, differential equations, theoretical mechanics etc.

Supervisor: Prof. Aleksandr Ivanov. Master's thesis: *About free products homeomorphisms*. The work is developing a topological theory of homeomorphisms in specific topological structures.

The master degree have been obtained in parallel with studying at Lappeenranta University of Technology.

**Sep 2015** – Coursera.org courses (no certificate):

- present:**
- Game Design: Art and Concepts Specialization (four courses)
  - Introduction to Interactive Programming in Python (two parts)
  - Introduction to Game Development (introducing to Unity)
  - Python for Everybody (four courses)
  - Java Programming (two courses)

### Professional experience:

**Sep 2012** – *Scientific Measuring Instruments Finland Oy, Lappeenranta, Project manager*

**Sep 2013:** *The company was established in 2011 as a daughter company of Russian company TKA with the intention to extend the activity of the latter to the European region.*

I have been responsible for certain paper work, controlling the development of their web-site and other tasks. I have been occasionally and successfully using the Finnish language in my work.

**May 2010** – *Lappeenranta University of Technology, Younger researcher*

**Apr 2011:** I have been carrying out a research at the Information Technology department, Machine Vision laboratory. The project has been focused on the use of structured light patterns for a 3D reconstruction of the shape of an object. In my work I have been actively using the Matlab software and C++ programming language under Linux operating system.

**Jun 2007** – *Internet company “Sampo.ru”, Petrozavodsk, Engineer of an Internet class*

**Aug 2007,** *The company is an Internet provider in Petrozavodsk.*

**Jun 2006** – I have been working with customers, cash register and performing varying office work (e.g., carrying out print, copy, cd burning, scanning, laminating operations and similar functions).

**Aug 2006:** I have as well been helping users in an Internet class. For example, giving advice on the use of certain software or how to operate with a camera. Besides, I have been making agreements with customers for providing Internet from the company to their homes.

### Skills:

*Languages:* Excellent English, intermediate Finnish, basic French, native Russian.

*Computer:* Windows and Linux OS (excellent), Mac OS X (basics), Office tools (Microsoft and LibreOffice), Graphics (Inkscape and Gimp), CFD tools (Openfoam, Ansys Icem, Fluend, Paraview) (basics), Programming (C/C++, Java, Python, MATLAB, L<sup>A</sup>T<sub>E</sub>X, HTML, Pascal).

### Additional information or other qualifications:

Communicative, responsible, team worker, computer literate, high analytical skills, quick learner, strong interpersonal skills, adaptable. I enjoy various sport, dancing, games (boardgames, computer). My interests comprise programming (especially computer graphics area), cooking and reading (English language books help to widen my vocabulary apart from being entertaining). Blood donor since April 2012.

### References:

**Tuomo Kauranne** / *Lappeenranta University of Technology, Mathematics and Physics department* / adj. prof., lecturer, tuomo.kauranne [at] lut.fi, +358 40 530 0622

**Matylda Jablonska-Sabuka** / *Lappeenranta University of Technology, Mathematics and Physics department* / post-doctoral researcher, matylda.jablonska-sabuka [at] lut.fi, +358 40 531 3041