

# Polyarnyi Nikolay

## Work Experience

### - Agisoft

Since April 2016

**Mathematician-Programmer**

PhotoScan developer. ([showcase](#))

Computer vision, computational geometry, GIS.

### - Transas

October 2014 - March 2016

**Mathematician-Programmer**

Developed server producing 3D landscape reconstruction and true orthophoto stitching from photos taken by UAV. ([presentation](#))

**Tools:** OpenCV, OpenCL, Python, Cython, Ceres-solver

### - Yandex.Money

February 2014 – October 2014

**Software Developer (Java backend)**

### - DevExperts

April 2013 – September 2013

**Software Developer (Java backend)**

## Skills

- **Computer Vision:** structure from motion, multiple view geometry, DSM reconstruction, magic (like haze removal)
- **Computational geometry:** computations with absolute accuracy, applications like DEM contours simplification without intersections
- **OpenCL:** GPU computations
- **OpenGL, WebGL:** standard shaders rendering and ray tracing
- **Python, C++, Java**

## Education

- Computer Science Center
- ITMO University, Computer Technologies
- PML #239, mathematical circle, programming contests

## Activities

- **Open-source:** contributed to OpenCV, PyOpenCL and others. Implemented Python bindings for OpenCL algorithms in OpenCV. Investigated problems in OpenCL implementations of OpenCV. GPU monitoring in i3pystatus. Was a developer of [jtalks.org](http://jtalks.org) project (administration control component).
- **Hackathons:** three victories on hackatons. [HackEdu](#) by JetBrains (third place), [Hackday#36](#) (Autodesk 3D-web nomination), [Science Hackday #2](#) (Startup nomination).
- **3D scanner:** develop 3D scanner during free time ([github](#))
- **Mathematical circle:** PML #239 mathematical circle teacher, SPb school team mentor, mathematical contests volunteer
- **Programming contests:** contests organization and participation

## Contacts

- [LinkedIn](#)
- [GitHub](#)
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