

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 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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Last updated: 09.04.2016