Aleksandr Tsyplenkov

Contact Information

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Profile

4^{th} year undergraduate student pursuing a bachelor degree in Cartography and Geoinformatics at Lomonosov Moscow State University (Faculty of Geography).

Education

Lomonosov Moscow State University (LMSU), Faculty of Geography, Department of Cartography and Geoinformatics

- B.Sc. in *cartography and geoinformatics* (currently undergraduate)

  Undergraduate Thesis (4^{th} grade): *"Smoothing filtering of the ArcticDEM DSM for unforested and undeveloped areas"* — to be defended; **2025**

  Undergraduate Thesis (3^{d} grade): *"DEMs smoothing filtering for the morphometric values calculation"* — successfully defended; **2024**

Additional Education

LMSU – Green finance and sustainable development - elective **2022**

LMSU – Introduction to Python programming - elective **2022**

The Moscow School of Programming – Data Science (Python course) **2020**

The Moscow School of Programming – Computer Networks **2020**

The Moscow School of Programming – Introduction to C# programming **2019**

The Moscow School of Programming – Introduction to C++ programming **2019**

Expeditions

LMSU – Dilijan National Park (Tavush Province, Armenia) **2025**

- *Field study of tree structures interpretation.* Study of possibilities to characterize tree structure by vegetation layers using dense point cloud data from UAV sensing.

LMSU – White Sea Biological Station (Republic of Karelia, Russia) **2023**

- *Topographic-geodesic practice.* Practice provided experience in operating modern geodetic equipment (total staion, optical level, GNSS receivers), RTK survey, topographic survey execution and teamwork.

LMSU – Pustozersk Landscape Reserve (Nenets Autonomous Okrug, Russia) **2023**

- *Field thematic interpretation practice.* Practice provided experience in UAV survey, UAV image postprocessing, spectrometry, thematic mapping and teamwork.

Internships

TU Berlin – Stadtökologie department **2025**

- The internship provided experience in enhancing skills for visualizing thematic spatial data, including the use of automation tools. Additionally, it offered experience in collaborating within an *international research team.*

Achievements

Awarded 1^{st} *place* in the Moscow City School Projects competition [Science Art Category] **2021**

- Web map, illustrating the locales associated with classical Russian literature in Moscow City (Stack: R + JS (Leaflet))

Conferences

LMSU – International young scientists' forum "Lomonosov-2024" **2024**

- Report on *"Experimental study of DEM smoothing filtering algorithms on artificial surfaces"* (speaker) ["Geography" section]

Other Events

LMSU – "LMSU Doors Open Day", Moscow **2025**

- Festival organization, presentation of faculty of Geography and Cartography and Geoinformatics department.

LMSU, RAS – Russian Science Festival "Nauka 0+", Moscow **2024**

- Festival organization, presentation of faculty of Geography and Cartography and Geoinformatics department.

TU Berlin – Lange Nacht der Wissenschaften, Berlin **2024**

- Festival organization, presentation of Urbanoikos department.

LMSU – Moscow Olympiad for School Students (Geography), Moscow **2023**

- Organization of the test process and overall management of the Olympiad

Hard Skills

Software:

- **GIS**: QGIS, ArcGIS (Pro/Desktop), SAGA GIS, GRASS GIS, WhiteboxTools;
- **Database Management**: PostgreSQL (PostGIS), MySQL;
- **Reference Management**: Zotero;
- **UAV management**: Pix4d, Dronedeploy, DJI Fly;
- **Photogrammetry**: Agisoft Metashape, CloudCompare;
- **Design**: Adobe Photoshop, Adobe Illustrator, Gimp;
- **Other**: SNAP, MultiSpec, ILWIS, Surfer, ParaView, Panoply;

Coding:

- Python (advanced): geospatial analysis, dataviz;
- R (pre-intermediate);
- C++ (pre-intermediate);
- C# (pre-intermediate);

Geodetic surveys:

- Tacheometric survey;
- Leveling and theodolite work;
- Work with GNSS receivers (including RTK mode);

UAV operated:

- DJI Mavic 3 (T&M), DJI Mavic 2, DJI Neo;

Miscellaneous:

- LaTeX, Markdown, Quarto, Git;
- OverpassTurbo;
- OSM iD, JOSM, Vespucci

Languages:

- English (C1), Russian (Native)

Other interests / Hobbies

- **Mapping for OSM**: My OSM contributions
- Some of my projects are presented in my web-portfolio