

Alexander Bruy

✉ alexander.bruy@gmail.com

in <https://linkedin.com/in/alexander-bruy>

📍 Zaporizhzhya, Ukraine

Geospatial developer with 14+ years of experience with QGIS and other open source GIS tools. Solid Python programming skills and a deep interest in modern open source geospatial technologies. Co-authored several books about QGIS, developed 20+ QGIS plugins. Self-starter, able to learn quickly.

■ Professional skills

Programming: Python/PyQt, C++ (Qt), SQL, basic Java and Kotlin.

Database: PostgreSQL/PostGIS, SpatiaLite.

Web: HTML, CSS.

GIS: QGIS, GDAL, WhiteboxTools, SAGA, basic GRASS and ArcGIS. Spatial analysis, raster and vector data processing.

■ Remarkable projects

- **WBT for Processing** plugin to integrate WhiteboxTools into QGIS Processing framework
- **GETools** QGIS plugin to export vector and raster layers into KML preserving symbology when possible
- **QConsolidate** QGIS plugin to consolidate all project layers into single directory or file

■ Work history

Nov 2010 – present

Geospatial Consultant

Open source GIS development and training.

- Developed 20+ QGIS plugins, including:
 - Tree Inventory — set of tools to implement tree wise forest inventory methodology based on UAV and LiDAR data
 - Circuitscape for Processing — QGIS plugin to integrate Circuitscape tools (connectivity analysis, wildlife corridors, landscape genetics, etc.) into QGIS
 - Geotag and import photos — QGIS plugin to manage, display and analyze photos obtained from photo-trapping surveys of wildlife
 - DTClassifier — C++ QGIS plugin for supervised thematic raster classification using OpenCV library for the project to facilitate monitoring of Forest Stewardship Council certified forestry enterprises.
 - CSWClient (now MetaSearch) — plugin to interact with CSW (Catalogue Service Web) services within QGIS.
- Developed range of data-processing scripts to process various spatial data
- Created and maintained custom QGIS build with NSIS-based installer.

Mar 2022 – present

Software Engineer

LutraConsulting, UK

Working on the MerginMaps project (Mergin plugin and Input field data collection app) and QGIS:

- improved project validations in QGIS Mergin plugin to make them more informative and user-friendly
- implemented a tool to preview local changes in QGIS Mergin plugin
- ported Input from Qt 5 to Qt 6
- added support for GPS antenna height setting to Input
- implemented distance-based tracking in Input
- implemented native PDAL Processing provider for QGIS with 10+ algorithms
- implemented Download vector tiles tool for QGIS Processing framework

Nov 2015 – Nov 2017 **Software Engineer (contractor)**

Boundless Spatial Inc., USA

Boundless Desktop team member with focus on the QGIS core bugfixing and Python plugins development.

- Boundless Connect plugin to browse and work with curated Boundless tools and content from the Boundless Desktop
- ImageDiscovery plugin for easy to use search and download of the imagery from the Planet imagery catalog within QGIS
- Navigation Tools plugin with set of tools to solve the most common navigation tasks (distance and bearing calculation, dead reckoning, triangulation etc.)

Aug 2009 – Jul 2010 **Engineer-programmer**

Zaporizhzhya State Institute of Land Management, Ukraine

- Maintained land management GIS
- Developed automated reports and templates for GIS Geoproject

Jun 2005 – Jul 2009 **System administrator**

State Land Cadastre Centre of Zaporizhzhya region, Ukraine

- Improved LAN heavily, implemented backup strategy for the critical data
- Developed regional land cadaster GIS which significantly increased operators performance in checking data correctness
- Migrated GIS of the Zaporizhzhya city center from ArcView 3.2 to ArcGIS 9.x (including custom tools and scripts)
- Developed set of automated reports and templates for GIS Geoproject
- Developed several helper tools to speedup preparation of answers on various requests

■ Education

Sep 2006 – Oct 2007 **Software Engineer**

Zaporizhzhya State Engineering Academy, Ukraine

Master thesis “Geographic information system of land cadaster”.

Sep 2000 – Jun 2005 **Master’s degree in microelectronics**

Zaporizhzhya National Technical University, Ukraine

Master thesis “Investigation of the mechanisms of the stimulated diffusion under the influence of the atomic hydrogen”.

■ Languages

- Ukrainian (native)
- Russian (advanced)
- English (advanced)

■ Publications

- Mandel A., Olaya Ferrero V., Graser A., Bruy A., 2016, QGIS 2 Cookbook, Birmingham, UK: Packt Publishing Ltd., 390 p., ISBN: 9781783984961.
- Bruy A., Svidzinska D., 2015, QGIS By Example, Birmingham, UK: Packt Publishing Ltd., 316 p., ISBN: 139781782174677.

■ Memberships

- QGIS core developer
- Active QGIS Community voting member
- Charter member of the Open Source Geospatial Foundation (OSGeo)