



[www.jakub-dvorak.eu](http://www.jakub-dvorak.eu)

Prague, Czechia

Happy to relocate.

Always excited by remote sensing problems, especially interested in SAR, Time Series and Deep Learning. I pride myself on taking a holistic view of each problem, which I demonstrated in research projects while attending University. I'm looking to join a fast-paced company pushing to improve the world around us.

## Geospatial-related professional experience:

- |           |  |
|-----------|--|
| 2020-2023 | E-TRAINEE – E-learning course on Time Series Analysis in Remote Sensing for Understanding Human-Environment Interactions – I developed content (including a Python library), course-wide functionality and led the course release team.    |
| 2023-2024 | Teaching “Intro to GIS” courses at a secondary school  |
| 2023      | Landsat/Sentinel-2 time series preprocessing for hydrological analysis – I built a script for creating yearly composites of a small catchment area, which were then used for assessing land cover change and its effect on local hydrology |
| 2020-2022 | Treeline ecotone classification – Deep Learning (U-Net based) classification from multitemporal (2001-2022) aerial imagery in Krkonoše and Jeseníky.   |
| 2021      | Snowstorm risk assessment in Mongolia – We formulated an index which was used by Prague ZOO to find more suitable areas for reintroduction of wild horses  |

## Education:

- |           |   |
|-----------|---|
| 2020-2023 | Master's in Cartography, GIS, and Remote Sensing<br>Thesis: <i>Geometric Aspects of Detecting Grassland Mowing in Krkonoše Mountains Based on Sentinel-1 Coherence</i><br>Charles University (Prague) + Erasmus at Humboldt University (Berlin) |
| 2017-2020 | Bachelor's in Physical Geography and GIS<br>Thesis: <i>Deep Learning for tree line ecotone mapping from remote sensing data</i><br>Charles University (Prague)  |
| 2022      | Trans-Atlantic Training – ESA/NASA workshops on Land Remote Sensing   |
| 2020      | EuroSDR EduServ – PhD-level courses on Deep Learning and Point Clouds   |

## Awards/publications:

- |      |  |
|------|--|
| 2023 | E-TRAINEE – co-authored papers about the project ( <a href="#">ISPRS Archives</a> )  |
| 2022 | ISPRS Congress – Presented full paper on Deep Learning as 1 <sup>st</sup> author ( <a href="#">ISPRS Annals</a> ) and received 3 <sup>rd</sup> place at CATCON for CNN Compare |
| 2021 | GISáček student thesis competition – 2 <sup>nd</sup> place for my bachelor thesis  |

## Geospatial-related technical skills:

Python (pytorch, scikit-learn, rasterio, xarray, ...) | QGIS | SNAP | SQL | ArcGIS/ArcPy | R | Git |  
Javascript (GEE, leaflet, ...) | Linux | HTML | Matlab | ENVI | eCognition | CloudCompare

## Extracurriculars/volunteering/summer jobs:

Summer camp instructor (2012-now), Election polling clerk/presiding officer (2017-now), Office intern and volunteer at Youth for Understanding CZ (2017-2020), EGEA Praha – member and PR coordinator of the local entity (2018-2020), Selling souvenirs in Prague ZOO (2016-2018)

## Language skills:

Czech (native), English (C1/C2), German, Danish (B1)