Ovidiu CSILLIK

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CURRENT POSITION

Jan 2022–Present **Jet Propulsion Laboratory, California Institute of Technology, CA**
Carbon Cycle and Ecosystems
Postdoctoral Fellow

EXPERIENCE

Feb 2020–Jan 2022 **Wageningen University & Research, The Netherlands**
Laboratory of Geo-information Science and Remote Sensing
Postdoctoral Researcher

Aug 2018–Dec 2019 **Arizona State University,** *Center for Global Discovery and Conservation Science*, **AZ**
Carnegie Institution for Science, Stanford, *Department of Global Ecology*, **CA**
Postdoctoral Researcher

EDUCATION

Oct 2015–Jul 2018 **University of Salzburg, Austria**
Ph.D. in Geoinformatics, *Department of Geoinformatics – Z_GIS*
Topic: Spatio-temporal object-based image analysis for land-use/land-cover mapping

Feb 2017-Aug 2017 **University of California, Berkeley, CA**
Visiting Scholar, *Department of Environmental Science, Policy, and Management*

Oct 2011–Jul 2013 **West University of Timisoara, Romania**
Master's degree in Geographical Information Systems

Oct 2008–Jul 2011 **West University of Timisoara, Romania**
Bachelor's degree in Geography

PUBLICATIONS

Journals (published, peer-reviewed)

Belgiu, M., Bijker, W., **Csillik, O.**, Stein, A., **2021**, Phenology-based sample generation for supervised crop type classification. **International Journal of Applied Earth Observation and Geoinformation**, 95, 102264.

Csillik, O., Asner, G.P., **2020**, Near-real time aboveground carbon emissions in Peru. **PLoS ONE**, 15(11), e0241418.

Csillik, O., Kumar, P., Asner, G.P., **2020**, A regional model for estimating tropical forest canopy height from Planet satellite images. **Remote Sensing**, 12, 1160.

Csillik, O., Asner, G.P., **2020**. Aboveground carbon emissions from gold mining in the Peruvian Amazon. **Environmental Research Letters**, 15(1), p.014006.

Csillik, O., Kumar, P., Mascaro, J., O'Shea, T. and Asner, G.P., **2019**. Monitoring tropical forest carbon stocks and emissions using Planet satellite data. **Scientific Reports**, 9(1), pp.1-12.

Csillik, O., Belgiu, M., Asner, G.P., Kelly, M., **2019**, Object-based time-constrained dynamic time warping classification of crops using Sentinel-2, **Remote Sensing**, 11, 1257.

Csillik, O., Cherbini, J., Johnson, R., Lyons, A., Kelly, M., **2018**, Identification of citrus trees from unmanned aerial vehicle imagery using convolutional neural networks, **Drones**, 2(4), 39.

De Castro, A., Torres-Sánchez, J., Peña, J., Jiménez-Brenes, F., **Csillik, O.**, López-Granados, F., **2018**, An automatic Random Forest-OBIA algorithm for early weed mapping between and within crop rows using UAV imagery, **Remote Sensing**, 10, 285.

Belgiu, M., **Csillik, O.**, **2018**, Sentinel-2 cropland mapping using pixel-based and object-based time-weighted dynamic time warping analysis, **Remote Sensing of Environment**, 204, 509-523.

Csillik, O., **2017**, Fast segmentation and classification of very high resolution remote sensing data using SLIC superpixels, **Remote Sensing**, 9(3), 243.

Pârvulescu, L., Zaharia, C., Groza, M.I., **Csillik, O.**, Satmari, A., Drăguţ, L., **2016**, Flash-flood potential: a proxy for crayfish habitat stability, **Ecohydrology**, 9(8), 1507-1516.

Csillik, O., Evans, I.S., Drăguț, L., **2015**, Transformation (normalization) of slope gradient and surface curvatures, automated for statistical analyses from DEMs, **Geomorphology**, 232, 65-77.

Drăguț, L., **Csillik, O.**, Tiede, D., Eisank, C., **2014**, Automated parametrization for multi-scale image segmentation on multiple layers, **ISPRS Journal of Photogrammetry and Remote Sensing**, 88, 119-127.

Conference proceedings and abstracts (selected)

Csillik, O., De Sy, V., Herold, M., Verchot, L.V., **2020**, The potential of Sentinel-2 and -1 for upscaling GEDI LiDAR sampling of vegetation height at global and ecosystem-level, AGU Fall Meeting 2020, Washington DC, USA (online)

Csillik, O., Drăguț, L., **2018**, Towards a global geomorphometric atlas using Google Earth Engine, Geomorphometry 2018, Boulder, CO, USA

Csillik, O., Belgiu, M., Kelly, M., **2018**, Automated object-based satellite image time series classification using dynamic time warping, GEOBIA 2018, Montpellier, France.

Lang, S., **Csillik, O.**, **2017**, ETRS grid-constrained superpixel generation in urban areas using multi-sensor very high resolution Imagery, GI_Forum 2017, 1, 244-252.

Csillik, O., Belgiu, M., **2017**, Cropland mapping from Sentinel-2 time series data using object-based image analysis, AGILE 2017 Conference, Wageningen, The Netherlands.

Csillik, O., Lang, S., **2016**, Improving the speed of multiresolution segmentation using SLIC superpixels, GEOBIA 2016, Enschede, The Netherlands.

Csillik, O., **2016**, Superpixels: the end of pixels in OBIA. A comparison of state-of-the-art superpixel methods for remote sensing data, GEOBIA 2016, Enschede, The Netherlands.

Csillik, O., Lang, S., Tiede, D., **2016**, Local spatial autocorrelation of very high resolution imagery – Causes and effects on image segmentation, 36th EARSeL Symposium, Bonn, Germany.

Csillik, O., Evans, I.S., Drăguț, L., **2015**, Automated transformation of slope and surface curvatures to avoid long tails in frequency distributions, Proc. of Geomorphometry 2015, Poznan, Poland.

Csillik, O., Drăguț, L., **2014**, Improving image segmentation with automated refinement of objects, GEOBIA 2014, Thessaloniki, Greece.

Drăguț, L., **Csillik, O.**, Eisank, C., Tiede, D., **2014**, Automated multiresolution segmentation on multiple layers, GEOBIA 2014, Thessaloniki, Greece.

Drăguț, L., **Csillik, O.**, Minár, J., Evans, I.S., **2013**, Land surface segmentation to delineate elementary forms from Digital Elevation Models, Proc. of Geomorphometry 2013, Nanjing, China.

Drăguț, L., Tiede, D., Eisank, C., **Csillik, O.**, **2012**, Objective objectification with multiresolution segmentation, GEOBIA Workshop – GIScience 2012, Columbus, Ohio, USA.

AWARDS

2020	**Award of Excellence in Earth and Space Sciences**, awarded to Romanian researchers, category early-career (<7y since PhD), by Ad Astra – Romanian Association of Researchers
2019	**Romania's Best Student**, in Europe, graduate level, awarded by the League of Romanian Students Abroad
2018	**Young Investigator Award**, second place (Natural and Life Science), **University of Salzburg**

2016	**Best Poster Presentation** at GEOBIA 2016 Conference, Enschede, The Netherlands
2014	**Best Poster Presentation** at GEOBIA 2014 Conference, Thessaloniki, Greece
2012–2013	**Award of Excellence** "Ioan Curea" of West University of Timisoara, for outstanding scientific research and professional achievements
2008–2011	**Awards of Excellence and Performance** of Faculty of Chemistry, Biology and Geography, West University of Timisoara, Romania

SCHOLARSHIPS

2012, 2015	GIS CEEPUS short-stay research mobility, University of Salzburg, Austria
2014	GEO-Scholarship from Group on Earth Observation, GEOBIA 2014, Greece
2012	GIS CEEPUS short-stay research mobility, Jagiellonian University, Krakow, Poland

PROFESSIONAL SERVICE

Journal Reviewer

Scientific Reports; Remote Sensing of Environment; ISPRS Journal of Photogrammetry and Remote Sensing; ISPRS International Journal of Geo-Information; International Journal of Remote Sensing; Remote Sensing; Journal of Applied Remote Sensing; International Journal of Digital Earth; IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing; Sensors; Applied Sciences; Geosciences; Journal of Photogrammetry, Remote Sensing and Geoinformation Science