

Lucas Johnson, Ph.D.

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Work Experience

- Postdoctoral Scholar** Riverdale, UT
Oregon State University August 2024 - Present
- Developed a web map application to support the joint consideration of carbon benefits and albedo offsets in tree-planting projects across the conterminous United States
 - Decomposing Nepal-wide forest carbon trends with NASA GEDI data to distribute REDD+ payments
- Research Assistant** Syracuse, NY
Climate and Applied Forest Research Institute August 2019 - August 2024
- Developed a forest carbon mapping framework for the NYS DEC supporting net-zero emissions goals
 - Communicated research findings in 4 scientific manuscripts and 8 conference presentations
 - Contributed writing, code, and statistical/spatial analysis to technical reports for external collaborators
 - Implemented R workflows to process > 30 TB of LiDAR point clouds and 2 TB of Landsat imagery
 - Established cloud computing infrastructure (AWS), geospatial databases, and data sharing software
 - Provided mentorship and technical support to grad students
- Data Engineer** Boston, MA
Lightkeeper, LLC August 2017 - July 2019
- Refactored ETL pipeline, establishing best practices and standard tools for customer-specific scripts
 - Designed and developed internal tools to track feature usage and identify computational bottlenecks
 - Implemented slack integrations to streamline requests from client support team

Education

- Doctor of Philosophy in Environmental Science** Syracuse, NY
SUNY College of Environmental Science and Forestry August 2019 - May 2024
- Bachelor of Science in Computer Science** Medford, MA
Tufts University August 2013 - May 2017

Volunteer Positions

- Technical Lead: Courtbot project** Remote
Code for Burlington July 2020 - July 2021
- Workshop Assistant** Syracuse, NY
Foundations of Scientific Computing December 2022, 2023

Skills

- Programming:** R, Python, SQL, git, and Linux shell languages.
GIS: QGIS, ArcGIS, GDAL, Google Earth Engine, and the R spatial ecosystem.