Lucas Johnson

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Work Experience

Research Assistant **Syracuse, NY**
Climate and Applied Forest Research Institute *August 2019 - Present*

- Developed a forest carbon mapping and monitoring system for the New York State Department of Environmental Conservation in support of net-zero emissions goals defined under the Climate Leadership and Community Protection Act
- Contributed writing, code, and statistical/spatial analysis to technical reports for state agencies and external collaborators
- Implemented R workflows to process, clean, and ingest > 30 TB of LiDAR point clouds and nearly 2 TB of Landsat imagery and derived indices
- 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
- Supervised and mentored a summer intern, providing project support and oversight to ensure success

Education

Doctor of Philosophy in Environmental Science **Syracuse, NY**
SUNY College of Environmental Science and Forestry *August 2019 - Present*

- Dissertation: A Forest Carbon Monitoring System for New York State

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*

- A free service providing text message notifications for court appearances

Workshop Assistant **Syracuse, NY**
Foundations of Scientific Computing *December 2022, 2023*

Skills

Programming languages: R, Python, SQL, and Linux shell languages.

GIS: QGIS, ArcGIS, GDAL, Google Earth Engine, R spatial ecosystem.