Lucas Johnson

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Work Experience

Research Assistant <div align="right">**Syracuse, NY**</div>

Climate and Applied Forest Research Institute <div align="right">*August 2019 - Present*</div>

- Developed a spatial forest carbon assessment for the NYS DEC 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 <div align="right">**Boston, MA**</div>

Lightkeeper, LLC <div align="right">*August 2017 - July 2019*</div>

- 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

Volunteer Positions

Technical Lead: Courtbot project <div align="right">**Remote**</div>

Code for Burlington <div align="right">*July 2020 - July 2021*</div>

- A free service providing text message notifications for court appearances

Workshop Assistant <div align="right">**Syracuse, NY**</div>

Foundations of Scientific Computing <div align="right">*December 2022, 2023*</div>

Education

Doctor of Philosophy in Environmental Science <div align="right">**Syracuse, NY**</div>

SUNY College of Environmental Science and Forestry <div align="right">*August 2019 - Present*</div>

- Dissertation: Mapping forest aboveground biomass stocks and changes to facilitate natural climate solutions in New York State

Bachelor of Science in Computer Science <div align="right">**Medford, MA**</div>

Tufts University <div align="right">*August 2013 - May 2017*</div>

Skills

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

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