# Lucas Johnson

☎ +1 315-345-4713 • ✉ lucas.k.johnson03@gmail.com

🌐 lucaskjohnson.com • 🐦 lucaskjohnson03 • ⓞ lucas-johnson

## 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

## 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*

## 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*

## Skills

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

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