

# Henry Rodman

🌐 [www.hrodmn.dev](http://www.hrodmn.dev) | ✉ [henry.rodman@gmail.com](mailto:henry.rodman@gmail.com) | 📞 612-845-7637 | 📍 Duluth, MN

🌐 [hrodmn](https://hrodmn) | [in hrodmn](https://www.linkedin.com/company/hrodmn) | [🐙 Fosstodon.org/@hrodmn](https://fosstodon.org/@hrodmn) | [🐦 hrodmn](https://twitter.com/hrodmn)

## Experience

---

### Data Engineer NCX, Remote | January 2021 - present

- Built and maintained multiple pipelines for processing and organizing geospatial data:
  - model training- and prediction pipeline for combining public satellite imagery datasets and ground measurements to predict forest vegetation structure for the contiguous US
  - forest carbon assessment pipeline capable of concurrently processing thousands of user-submitted property boundaries
  - NCX's SpatioTemporal Asset Catalog (STAC)
- Deployed machine learning and Bayesian statistical models in production
  - Python: pytorch, fastai, tsai
  - R: brms
- Distributed data products to the NCX Platform Team for consumption on NCX's Landowner Platform
- Maintained unit testing and CI/CD for multiple Python + R packages and associated processing workflows in GitHub actions
- Managed and deployed the docker images used for development within the NCX data team
- Deployed serverless infrastructure for the STAC API and tiling services in AWS using CloudFormation, RDS, and Lambda
- Explored emerging technologies for analyzing and processing geospatial data and deployed them into production pipelines and platforms
  - e.g. eoAPI, titiler-pgstac, stac-fastapi, stackstac, xarray

### Forest Biometrician SilviaTerra, Remote | June 2016 - December 2020

- Developed processes for generating forest inventory data using ground measurements paired with remote sensing data
  - built and maintained a suite of Python and R packages for processing remote sensing data and rendering model predictions.
  - implemented rigorous statistical methods for generating model-assisted estimates of forest structure
- Operated and configured the cloud computing infrastructure to generate forest inventory estimates for millions of acres
- Communicated with industrial forest management companies to understand their forest inventory data needs

## Education

---

### MS Sustainable Forest Management

Oregon State University, Corvallis, OR | 2016

Thesis: Forest Soils and Topography : Decoding the Influence of Physical Site Characteristics on Soil Water and Forest Productivity in Oregon's Coast Ranges

### BS Forest Resources

University of Minnesota, St. Paul, MN | 2014