

# Henry Rodman

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## Experience

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**Cloud Engineer** Development Seed | May 2024 - Present

**Senior Software Engineer** NCX, Remote | December 2023 - May 2024

- Designed and maintained a network of live applications that serve the NCX platform
  - FastAPI application that accepts requests from users via a front-end application
  - several HTML/Javascript templates for serving interactive maps using MapLibre and Mapbox
- Deployed infrastructure-as-code for geospatial data processing pipelines and associated APIs using AWS CloudFormation
  - PostgreSQL, EC2, Lambda, pgstac, titiler-pgstac, PostGIS, sqlalchemy

**Data Engineer** NCX, Remote | January 2021 - December 2023

- Built and maintained multiple pipelines for processing and organizing geospatial data:
  - PostGIS-powered property assessment pipeline for assessing suitability for natural resource development and conservation projects
  - NCX's SpatioTemporal Asset Catalog (STAC)
  - 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
- 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

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

- Developed processes for generating forest inventory data using ground measurements paired with remote sensing data
- 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

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**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