

Ryan Charles Lingo, M.A.

Professional Experience

GIS Database Engineer

Excellent Technology Solutions (XTS) – United States Geological Survey – Remote
January 2025 – September 2025

- Develop Python-based geoprocessing tools for transportation, graphics, and spatial datasets, automating workflows that support national geospatial programs.
- Manage and optimize geodatabases with ArcGIS Enterprise, Workflow Manager, and PostgreSQL/pgAdmin, leveraging traditional and branch versioning.
- Built replica sync automation script with validation counts and automated email reporting; support EC2 monitoring and sync integrity.
- Contribute to Terraform-driven deployments of EC2 instances with mission-critical software.
- Collaborate in Agile workflows using Jira and GitLab for task tracking, source control, and code reviews.

Digital Marketing and Systems Specialist

The Lingo Group Inc. – Greater Philadelphia Area
December 2023 – January 2024

- Led content creation, layout planning, and design input for a modern website to enhance traffic, user engagement, and lead generation.
- Utilized Adobe Creative Suite, Microsoft Visio, and Jira to streamline project management and track deliverables.
- Developed automation tools, including an EZ Pass transponder tracking system and inventory management solutions using Power Apps and Microsoft Lists, optimizing asset management.
- Redesigned company logos and integrated them across digital platforms to strengthen online presence.
- Implemented SEO strategies to improve search engine visibility and support marketing efforts.

GIS Developer/Automation Support

Leidos Inc. – Federal Aviation Administration, Headquarters - Washington, DC
October 2020 – August 2023

- Developed geoprocessing workflows and automated data analysis using Python and AWS tools, enhancing data extraction and management.
- Conducted data validation and user-acceptance testing for geospatial applications, ensuring functionality met requirements.
- Created data visualizations using ArcGIS, Tableau, and Power BI, delivering actionable insights to stakeholders.

GEOGRAPHER

United States Census Bureau, Headquarters - Washington, DC
February 2019 – October 2020

- Designed Python tools to support spatial analysis and data quality control for nationwide geographic programs.
 - Developed and implemented quality control systems to meet operational schedules and standards.
 - Completed advanced courses in ArcPy, Python, and Machine Learning to enhance geospatial analysis capabilities.
-

Ryan Charles Lingo, M.A.

Graduate Assistant

Department of Geography and Environmental Planning - Towson, MD

August 2016 – May 2018

- Assisted with GIS lab grading and research projects, including mapping land surface temperature for city planning.
- Provided support for courses in GIS, Geography, and Climatology, contributing to academic development.

Geospatial Research Consultant

Science Systems and Applications Inc., NASA DEVELOP National Program - Greenbelt, MD

May 2017 – September 2017

- Developed a global resiliency monitoring tool based on precipitation analysis for the Niger Water Resources project.

Paleoclimatology Intern - Paleogeosciences Cataloguer

NOAA - World Data Center for Paleoclimatology - Boulder, CO May

2014 - September 2014

- Collected and cataloged paleogeoscience resources for global database integration, authoring over 200 resource descriptions.

Education

Master of Art - Geography and Environmental Planning

Towson University - Towson, Maryland

Bachelor of Science - Geology

Bachelor of Science - Environmental

Earth Science Minor: Meteorology

California University of Pennsylvania - California, Pennsylvania

Software Skills

Operating Systems: Linux, Microsoft Windows

Cloud Computing: Amazon Web Services

Tracking: JIRA, GitLab, GitHub Desktop

GIS and Data Analysis: ArcGIS Online, ArcGIS Workflow Manager, ArcGIS Pro, ArcGIS Desktop, QGIS, TerrSet, Tableau, Power Bi, SPSS

Microsoft: Office 365, Word, Excel, PowerPoint, Outlook, OneNote, SharePoint, Teams, Automate, Lists, etc.

Graphic and Video Editing: Adobe Photoshop, Adobe Lightroom, Adobe Premiere Pro

Databases Management: pgAdmin, PostgreSQL, TOAD, Oracle (Oracle SQL Developer)

Programming Languages: Python, SQL, Terraform, JavaScript, HTML, CSS

Programming Libraries and Modules: ArcPy, PANDAS, regex, urllib3, Fiona, json, BOTO3, arcgis, Skyfield, git, etc.

Data Formats: Raster, Vector, KML, GeoJson, JSON-LD, Shapefile, XML, etc.

Ryan Charles Lingo, M.A.

Certifications & Badges

AWS Certified Cloud Practitioner Foundational – December 2023

Previous Research

Long-term trend analysis and changes to the mean and variability of temperature in Pennsylvania from 1983 to 2014; American Association of Geographers, 2017

Baltimore City Urban Heat Island: A Problem Based Approach; Middle Atlantic Division of the American Association of Geographers, 2016

New Catalog of Resources Enables Paleoclimate Research on Weather, Water, and Climate Change American Meteorological Society, 2015

New Catalog of Resources Enables Paleoclimate Research American Geophysical Union; 2014

Publications

Tomlin, J., El-Behaedi, **R., Lingo, R.**, McCartney, S., Thieme, “Stress and Duress in the Sahel: Building Resiliency in Niger” Earthzine August (2017)

Anderson, David M., K. Horlick, and **R. Lingo**. “Share Your Geoscience Resources in the EarthCube Paleogeoscience Catalog.” Past Global Changes, PAGES June (2014): 1, Web.

Anderson, D., Horlick, K., **Lingo, R.**, "NSF EarthCube *Paleogeoscience* RCN Catalog of Software Resources", "NSF EarthCube *Paleogeoscience* RCN Catalog of Repository Resources", and "NSF

EarthCube *Paleogeoscience* RCN Catalog of Database Resources”, *National Oceanic and Atmospheric Administration*, 8/20/2014
