

# Ryan Charles Lingo, M.A.

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## PROFESSIONAL EXPERIENCE

- GIS Database Engineer**

January 2024 – September 2025

Excellent Technology Solutions (XTS) – United States Geological Survey

Remote

  - 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**

December 2023 – January 2024

The Lingo Group Inc.

Greater Philadelphia Area

  - 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
  - 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**

October 2020 – August 2023

Leidos Inc. – Federal Aviation Administration

Washington, DC

  - 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**

February 2019 – October 2020

United States Census Bureau

Washington, DC

  - 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
- Graduate Assistant**

August 2016 – May 2018

Department of Geography and Environmental Planning

Towson, MD

  - 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**

May 2017 – September 2017

Science Systems and Applications Inc., NASA DEVELOP National Program

Greenbelt, MD

  - Developed a global resiliency monitoring tool based on precipitation analysis for the Niger Water Resources project
- Paleoclimatology Intern - Paleogeosciences Cataloguer**

May 2014 – September 2014

NOAA - World Data Center for Paleoclimatology

Boulder, CO

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

## EDUCATION

- Master of Arts - Geography and Environmental Planning**

Towson University - Towson, Maryland
- Bachelor of Science - Geology**

California University of Pennsylvania - California, Pennsylvania
- Bachelor of Science - Environmental Earth Science**

Minor: Meteorology

## TECHNICAL SKILLS

<b>GIS Software &amp; Platforms</b> ArcGIS Enterprise, ArcGIS Pro, ArcGIS Desktop, ArcGIS Online, ArcGIS Workflow Manager, QGIS, TerrSet	<b>Programming &amp; Automation</b> Python, ArcPy, SQL, Terraform, JavaScript, HTML, CSS
<b>Spatial Database Management</b> PostgreSQL/PostGIS, pgAdmin, Oracle SQL Developer, TOAD, Geodatabase Design, Branch Versioning	<b>Cloud &amp; Infrastructure</b> Amazon Web Services (AWS), EC2, Terraform, Cloud-based GIS Workflows
<b>Data Analysis &amp; Visualization</b> Tableau, Power BI, SPSS, Geoprocessing Workflows, Spatial Analysis, Data Quality Control	<b>Python Libraries &amp; Tools</b> ArcPy, PANDAS, Fiona, BOTO3, arcgis, urllib3, regex, json, git
<b>Project Management &amp; Collaboration</b> JIRA, GitLab, GitHub, Agile Workflows, Microsoft Office 365, SharePoint, Teams	<b>Data Formats &amp; Standards</b> Raster, Vector, KML, GeoJSON, Shapefile, XML, JSON-LD, Geospatial Data Standards

## CERTIFICATIONS

**AWS Certified Cloud Practitioner Foundational** – December 2023

## PUBLICATIONS & RESEARCH

- 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.
- Conference Presentations:** Long-term trend analysis and changes to the mean and variability of temperature in Pennsylvania from 1983 to 2014; American Association of Geographers, 2017
- Research Projects:** Baltimore City Urban Heat Island: A Problem Based Approach; Middle Atlantic Division of the American Association of Geographers, 2016