

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

Programming Languages Python, SQL, Terraform, JavaScript, HTML, CSS	Cloud Computing Amazon Web Services (AWS)
GIS and Data Analysis ArcGIS Online, ArcGIS Workflow Manager, ArcGIS Pro, ArcGIS Desktop, QGIS, TerrSet, Tableau, Power BI, SPSS	Database Management pgAdmin, PostgreSQL, TOAD, Oracle (Oracle SQL Developer)
Python Libraries ArcPy, PANDAS, regex, urllib3, Fiona, json, BOTO3, arcgis, Skyfield, git	Enterprise Tools Microsoft Office 365, SharePoint, Teams, JIRA, GitLab, GitHub Desktop, Adobe Creative Suite

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