

Michael Trobia

Philadelphia, PA | [Portfolio](#) | [LinkedIn](#) | [Handshake](#) | michaelandrewtrobia@gmail.com

Professional Summary

GIS and data professional with 8+ years of leadership and compliance experience in regulated environments. Skilled at transforming operational and quality-control data into actionable insights through GIS, Power BI, and structured datasets. Proven record of leading teams, improving processes, and developing training systems while ensuring regulatory compliance. Passionate about applying geospatial analysis, data visualization, and process improvement to support environmental planning, public health, and community equity.

Education

Arizona State University, Barrett Honors College – BA Geography (Expected 2026)

Certificate in Geographic Information Science (2024)

Lean Six Sigma Green Belt – Meliora Consulting (2019)

Fellowship

Community Capital Lab – Fellow (2024–Present)

- Contributed GIS insights to the Community Capital Dashboard
- Supported equity-centered urban planning and data integration

Selected Academic & Independent GIS Projects

- **Habitat Suitability for Bald Eagles (CA, 2024):** Raster overlay of land cover, elevation, and hydrology to identify viable habitats.
- **Hydrology of Pumpkin Creek (OK, 2024):** Modeled slope, flow direction, and watershed boundaries in ArcGIS Pro.
- **COVID-19 & Health Equity in Minnesota (2024):** Spatial analysis of case and mortality rates; linked public health disparities to geographic patterns.
- **Phoenix Light Rail & Demographics (AZ, 2024):** Buffer analysis of block groups and tracts; evaluated accessibility and equity of light rail expansion.
- **Air Pollution Interpolation (Maricopa County, AZ, 2024):** Compared IDW, kriging, and trend surface interpolation for emissions data.
- **Tree Species Distribution (MN, 1850):** Historical GIS reconstruction of box elder and spruce pine ranges.
- **EV Charging Network Analysis (US, 2024):** Closest facility and service area analysis of charging infrastructure.

- **Hurricane Florence Flood Risk (2018):** Mapped storm surge and floodplain overlap with vulnerable populations.
- **California Earthquake Risk Mapping (2024):** Combined seismic hazard data with population exposure to assess relative risk.

Professional Experience

American Red Cross – Rochester, NY & Philadelphia, PA

Supervisor, Quality Control & Components (Sept 2022–Present)

- Direct oversight of overnight laboratory operations, coordinating scheduling, logistics, and interdepartmental communication.
- Lead process improvement initiatives that increased throughput and reduced discard rates by 40%.
- Designed and maintain Power BI dashboards and Excel trackers to monitor production, discard trends, and compliance metrics.
- Collaborate with management and executives to address bottlenecks, redesign workflows, and implement Lean processes.
- Mentor and train staff on SOPs, compliance, technical procedures, and professional development.
- Support equipment qualification processes (IQ/OQ/PQ) and ensured adherence to FDA, AABB, and CLIA standards.
- Serve on Diversity, Equity & Inclusion and Culture committees, advancing organizational priorities in employee engagement.

Earlier ARC Roles (2018–2022): Lead Lab Tech, QC Tech, Component Production

- Oversaw production and documentation of 500+ blood units per shift in compliance-driven laboratory environment.
- Developed discard tracking system and visual management tools that improved data visibility and reduced product waste.
- Participated in cross-functional pilot programs introducing new workflows, instrumentation, and compliance systems.
- Acted as liaison between departments, coordinating data handoffs, compliance documentation, and operational adjustments.

Unither Pharmaceuticals – Rochester, NY

Packaging Associate (2018–2020)

- Supported pharmaceutical packaging operations under cGMP regulations.

Volunteer Contributions

Humanitarian OpenStreetMap & MapSwipe – Remote contributor, mapping infrastructure for disaster response.

Technical Skills

GIS & Mapping: ArcGIS Pro, QGIS, StoryMaps

Data & Visualization: Power BI, Excel (Advanced), Python (Basic)

Spatial Tools: Raster modeling, service areas, network analysis

Compliance & QA: cGMP, DEA, FDA, AABB, CLIA; documentation and auditing

Leadership & Process Improvement: Workflow optimization, logistics coordination, staff training, cross-functional liaison

Professional Affiliations

Geospatial Professionals Network (GPN)

Arizona Geographic Information Council (AGIC)

Selected Research & Writing

- **SEPTA Bus System Equity Analysis** – Evaluated on-time performance and transit equity.
- **Plan for Community Action: Homelessness** – Policy proposal integrating housing, health, and equity.
- **Envisioning the Sustainable City** – Sustainability plan grounded in SDGs.
- **Culture-Bound Syndromes: Taijin Kyofusho** – Cultural medical sociology analysis.