

# STEVEN W. RUSSELL JR., GISP, EIT

Buffalo, NY • [steven@russelljr.com](mailto:steven@russelljr.com) • [linkedin.com/in/steven-russell-gisp-60b82b19](https://www.linkedin.com/in/steven-russell-gisp-60b82b19)

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## PROFESSIONAL SUMMARY

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Enterprise GIS architect and program leader experienced in designing enterprise geodatabases, automating data validation workflows, and managing complex multi-stakeholder geospatial systems. Proven expertise in Python-based ETL, data quality assurance, and enterprise system integration for mission-critical infrastructure. GISP-certified with a strong foundation in civil engineering and geospatial governance. Currently working in ArcGIS Pro 3.x, Python/ArcPy, ArcGIS Enterprise, and modern web GIS stacks (Experience Builder, Esri JavaScript API). Skilled at translating complex spatial logic into production systems, building and mentoring technical teams, and delivering clear documentation for stakeholders at every level.

## CORE COMPETENCIES

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Enterprise Geodatabase Design & SQL Administration • Python & ArcPy Scripting / ETL & Automation • Data Validation & Quality Assurance Workflows • Network Connectivity & Topology Analysis • ArcGIS Enterprise / Server / Online Administration • GIS Data Governance & Compliance Standards • Remote Sensing (ENVI, ERDAS Imagine, Esri Image Analyst) • Metadata & Technical Documentation • Staff Supervision, Mentoring & Training

## PROFESSIONAL EXPERIENCE

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### Enterprise GIS & ECM Systems Administrator

*Erie County Department of Social Services, Buffalo, NY | 2018 – Present*

Serve as sole OnBase System Administrator for a county-wide document management system supporting mission-critical workflows. Design and manage data validation frameworks including barcode/IAD integration, custom keyword set logic, cross-reference validation, and automated error detection. Architect Unity Forms for structured data capture and compliance with enterprise governance standards. Troubleshoot and resolve complex system integration issues — scanner routing, data quality discrepancies, and sync failures — for reliable multi-stakeholder operations.

### GIS Consultant / Subject Matter Expert

*North Carolina Railroad, Raleigh, NC (Remote) | 2023 – 2025*

Provided GIS consulting for enterprise ArcGIS environments including ArcGIS Server, Portal, and Geocortex. Managed user accounts and worked with Experience Builder sites for enterprise geospatial data distribution. Served as SME for GIS architecture decisions, data management workflows, and spatial analysis deliverables supporting rail right-of-way operations.

### Senior IT / GIS Engineer — Enterprise Infrastructure GIS

*Erie County Division of Sewerage Management, Buffalo, NY | 2001 – 2018*

Architected enterprise geodatabase schema from the ground up for a complex linear infrastructure system (sanitary and storm sewer networks, 50,000+ assets, ~75% of service area). Designed and implemented validation rules for network connectivity, spatial accuracy, and attribute integrity. Automated QA workflows for asset attribution, topology checks, and error detection using custom Python scripts. Migrated legacy AutoCAD and paper records into a structured geodatabase, establishing data governance standards and technical documentation.

Managed annual GIS/IT budget and led hardware/software procurement. Administered ArcGIS Server across production and development environments and maintained SQL Server spatial databases supporting enterprise operations. Supervised 1–2 GIS staff and 1–4 interns; designed and delivered technical training for office and field personnel. Deployed automated ticketing system (Dig Smart / infraMAP) reducing staff requirements while achieving 99.99% on-time processing rate for 20,000+ annual underground facility protection tickets.

## TEACHING

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### **Adjunct Professor, GIS Instruction**

*Erie Community College, Williamsville, NY | Fall 2012 – Present*

Developed and taught undergraduate GIS courses using ArcGIS Pro, including Introduction to GIS and Advanced Topics in Web GIS. Curriculum emphasizes data modeling, spatial analysis, geoprocessing, and technical communication — skills directly applicable to enterprise geospatial system design and documentation.

### **Adjunct Professor, Spatial Algorithms**

*Rochester Institute of Technology, Rochester, NY | Fall 2023 – 2024*

Taught IGME386 — Spatial Algorithms and Problem Solving, covering ArcGIS Pro, Python scripting, ESRI Unity SDK, and the ESRI JavaScript API. Instruction focused on spatial problem-solving methodologies and algorithmic thinking applicable to complex data validation and ETL design.

## PROFESSIONAL SERVICE

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**Awards Committee Chair** | New York State GIS Association (NYSGISA) | Current

## EDUCATION

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**PhD — Geography / GIS** (coursework completed; research focus: Remote Sensing — Automating Impervious Surface Classification) | University at Buffalo, 2008–2013

**Master of Arts — Geography / GIS** | University at Buffalo

Master's Project: Percent Impervious Classifications Using Remote Sensing Methods

**Bachelor of Science — Civil Engineering** | University at Buffalo

## CERTIFICATIONS & CREDENTIALS

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GISP — GIS Professional (Cert. #91262)

OnBase Certified System Administrator

Engineer in Training (EIT) — Fundamentals of Engineering Exam