

SUMMARY

Strategic GIS Manager and Certified GIS Professional (GISP) with nearly a decade of experience bridging spatial data science with natural resource management. Proven track record of modernizing Enterprise GIS infrastructure, ensuring regulatory compliance, and optimizing workflows for forestry, renewable energy, and defense sectors. Combines advanced technical proficiency in Python, SQL, and the Geospatial ecosystems with military-grade leadership skills to build high-performing teams and deliver data-driven solutions.

EXPERIENCE

GIS Manager & Data Scientist | *Tennessee Division of Forestry* | *September 2025 - Present*

- Oversee the strategic direction and daily operations of the Division's GIS program, supporting sustainable forest management, wildland fire response, and state forest administration.
- Architect and administer the Division's ArcGIS Online infrastructure and databases, ensuring high availability of critical spatial data for field staff and incident command teams.
- Lead the deployment of mobile data collection solutions to streamline workflows for field foresters and improve data accuracy from the ground up.
- Establish data standards and QA/QC protocols to maintain the integrity of statewide datasets, including forest inventory, burn history, and land ownership records.
- Develop and maintain Python scripts to automate complex data processing pipelines and generate automated reports for Division leadership.
- Liaison with state and federal agencies to coordinate data sharing and support interagency emergency response efforts during fire seasons.

GIS Lead Analyst | *Kimley-Horn & Associates* | *May 2022 - January 2026*

- Managed project lifecycles and budgets, writing detailed proposals and scopes of work to align with client objectives and secure new business.
- Led advanced spatial data analysis and process automation using ArcGIS Pro, Python, and SQL across multidisciplinary engineering practices.
- Supported interdisciplinary teams by creating cartographic maps and interactive visualizations using Esri's ArcGIS suite, Google Earth Pro, and Microsoft products.
- Navigated regulatory landscapes to secure environmental permits, including Section 404 (NWP/IP), Section 10, NPDES, and Stream Buffer Variances, while coordinating Section 7 ESA consultations.
- Conducted comprehensive environmental assessments, including aquatic resource surveys, Phase I & II ESAs, and ecological surveys; collected field data via GPS/ArcGIS Online.
- Administered user roles in ArcGIS Enterprise and ArcGIS Online, troubleshooting technical issues to maintain system integrity.

River Lead & Guide School Trainer | *US National Whitewater Center* | *March 2019 - October 2023*

- Raft Department on-site manager responsible for daily operations, including overseeing safety trip talks and managing Trip Leads and Raft Guides.
- Responded to guest incidents and injuries, maintaining strict on-water safety standards in a high-volume recreation environment.

Pre-sale Forester & Wildland Firefighter | *US Forest Service* | *May 2020 - August 2021*

- Conducted tree stand surveys with Trimble GPS devices to delineate timber unit boundaries and calculate timber metrics.
- Created static maps with ArcGIS Pro for timber sale units to visualize basal area and estimated board feet.
- Performed on-call duties as a wildland firefighter, assisting in the prevention and suppression of wildfires throughout national forests in the Pacific Northwest.

Infantry Team Lead (11B) | *US Army* | *February 2016 - February 2019*

- Led and managed specialized infantry teams of up to 10 soldiers with Secret/Top Secret clearances.
- Conducted intense field training exercises for overseas deployment preparation.
- Utilized GPS/GNSS technologies and physical topographic maps for navigation and search and rescue operations.

EDUCATION

M.S. GIS & Geoinformatics | *Colorado School of Mines* | *May 2024*

- 4.0 GPA, while working full time for Kimley-Horn

B.S. Geography & B.A. Environmental Studies | *University of North Carolina - Charlotte* | *May 2023*

- 3.98 GPA, graduated top of class “Summa Cum Laude”

CERTIFICATIONS

GIS Professional (GISP) | *GIS Certification Institute* | *July 2024*

Data Analytics Professional Certification | *Google* | *2023*

Remote Pilot (UAS) Certification | *Federal Aviation Administration* | *2023*

SKILLS & SOFTWARE

GIS & Remote Sensing | Esri Enterprise, ArcGIS Pro, AGOL, QGIS, Google Earth Engine, Atlas, UAS Remote Pilot.

Development & Data | Python, SQL, PostgreSQL/PostGIS, Arcade, JavaScript, HTML/CSS, RESTful APIs, ETL, Pipelines, Google Cloud, AWS.

Artificial Intelligence | Google Gemini, Google Vertex AI, Anthropic Claude, LangChain.

Tools & Visualization | Blender 3D, Interactive Web Apps and Dashboards, Microsoft Power Platform, Adobe Creative Cloud.

Leadership | Project Management, Budgeting, Strategic Planning, Regulatory Permitting, Technical Training, Team Leadership.