

Tom McKay

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Professional Summary

FAA Part 107 Certified Remote Pilot and GIS professional with 15+ years of experience in geospatial analysis, field data operations, and technical project coordination. Specializing in UAV mapping and photogrammetry, I manage end-to-end aerial data workflows—including flight planning, field operations, data capture, and GIS integration—to deliver accurate, actionable geospatial products. Experienced supporting industries such as public works, construction, agriculture, and infrastructure management. Recognized for reliability under pressure, strong communication, and a client-focused approach. Actively expanding a portfolio of UAV mapping projects while seeking full-time opportunities in UAV operations, project coordination, and geospatial program management.

Core Competencies

UAV Mapping & Photogrammetry • Orthomosaic & DSM Generation • 3D Modeling & Topographic Mapping • Remote Sensing & Imagery Analysis • GIS Data QA/QC • UAV Flight Planning • Field Operations & Safety Compliance • Understanding of GCP & RTK/PPK Concepts • Technical Project Management • Client & Vendor Relations

Certifications

- FAA Part 107 Remote Pilot License
 - B.S. in Geography (GIS Focus), SUNY Oneonta
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Professional Development

Completed:

- Esri ArcGIS Pro Online Courses
- Introduction to QGIS
- 2025 ArcGIS Online WebMaps Course
- ArcGIS Experience Builder
- Basics of Python and ArcPy for ESRI GIS

In Progress:

- LiDAR Fundamentals & Applications

Planned:

- CAPM Exam Prep Course 2025
 - Essentials for PyQGIS
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Experience

Independent GIS & UAV Mapping Specialist — *Remote / Self-Directed* **June 2025 – Present**

- Plan and execute UAV mapping missions, capturing aerial imagery and processing data in WebODM to generate high-resolution orthomosaics, DSMs, and textured 3D models.
 - Create GIS deliverables in QGIS for applications including construction site monitoring, agricultural field assessment, topographic visualization, and roof inspections.
 - Maintain an online portfolio documenting project workflows, methodologies, and technical capabilities.
 - Continuously advance technical expertise through GIS software training and photogrammetry practice.
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Portfolio Projects (*in progress, completion Fall 2025*)

- **Topographic Park Visualization** – DSM generation and contour extraction from UAV imagery.
 - **3D Model of Small Structure** – Textured mesh model for visualization.
 - **Roof Inspection Demo** – High-resolution orthomosaic for condition assessment.
 - **Construction Site Monitoring** – Repeat UAV missions with orthomosaic updates for progress tracking.
 - **Agricultural Field Mapping** – Stitched RGB orthomosaic for visual crop and field condition assessment.
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PrecisionHawk, Inc. — Raleigh, NC

Technical Project Manager & Geospatial Sales Lead | 2017–2022

- Managed remote sensing projects for utility and telecom clients, overseeing UAV and satellite data workflows.

- Led cross-functional teams in the development of drone software solutions for telecom asset mapping.
 - Generated sales and delivered commercial satellite imagery and GIS products to energy, construction, and agriculture sectors.
 - Coordinated with vendors and internal GIS staff to ensure timely, accurate geospatial product delivery.
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KCI Technologies • NCDOT • Vance County

GIS Analyst / GIS Technician | 2008–2017

- Maintained and edited GIS datasets for transportation, utility, and emergency response applications.
 - Produced custom maps for planning, public safety, and stakeholder communication.
 - Implemented ArcGIS Online solutions and supported GIS software users.
 - Collaborated across local and state government agencies on multi-jurisdictional mapping projects.
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Various NC Law Enforcement Agencies

Police Officer / School Resource Officer | 2022–2025

- Ensured public safety through enforcement, community engagement, and incident response.
 - Applied operational decision-making and detailed documentation skills in high-pressure environments.
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Technical Skills

QGIS • ArcGIS Pro • ArcGIS Online • WebODM • UAV Flight Planning Apps • Microsoft Office Suite

Portfolio: www.droneprojectsbytom.com