

Interdisciplinary principal geospatial technology specialist with five years of professional experience delivering enterprise asset spatial information services and technology products on time, in scope, and under budget in service to state military, federal DoD, and commercial customers. Comfortable managing simultaneous geospatial utility and physical asset management projects in structured PM environments utilizing Agile, Waterfall, and hybrid methodologies. I engage directly with stakeholders to understand and track project risks and mitigate them early. I believe good project management enables strong alignment between business operations, customer pain points, and strategic positioning for the product portfolio.

Select Professional Experience

Senior Geospatial Consultant, *Motivf Corporation - Alexandria, Virginia (01/2017 – Present)*

Engagements are performed simultaneously in Agile services-based consulting environments working in fast-paced, dynamic, team-oriented environments. I develop, maintain & support project plans, schedules & budgets. As an internal liaison between teams, my work tasks require strict prioritization, rigorous organization, and realistic timelines to balance client needs with project expectations. As direct (in person) liaison to the client users, I facilitate timely communication, mitigate change impacts, and gracefully mitigate scope creep. Ready to travel extensively on <24 hour notice to perform Facility and/or Real Property Condition Assessments. Select ongoing technical responsibilities:

- Linux (CentOS, Ubuntu) configuration and maintenance for commercial media clients.
- Applies software, OS, and security patches on a regular basis.
- Performs systems security administration and configuration functions. This includes configuring controlled access.
- Managing SSL Certificates and DNS.
- Ready to troubleshoot system issues and provide regular status updates.

Select engagements listed below:

(1/4) Lead Geospatial System Engineer - Critical Infrastructure & Asset Management

US Army G-9 Asset Management Division (09/2021 - Present)

Developed value proposition for technical approaches to streamline the Army asset acquisition-to-retirement lifecycle. This requires understanding key stakeholder pain points for potential to automate information dissemination between business needs in both the field and office. Needs were further articulated as enterprise data management and utilization strategy to support GIS system implementation.

- Conducted customer interviews with federal stakeholders to gather requirements for Army asset management and personnel stationing business system consolidation effort. This necessitates compiling a clear understanding of Army geospatial business needs along with detailed stakeholder (civilian military leadership) and user processes/workflows. I documented these needs as functional requirements.
- Translated the voice of the Army asset manager into the design of the new information system architecture in Microsoft Azure. Provided consultation to leadership on the strengths and weaknesses of GIS for utilization in different program areas.
- Engaged design and engineering teams to define technical requirements for enterprise system architecture and database prototype. The purpose of this prototype is to vet both the use-cases and system consolidation requirements articulated by the stakeholders.

(2/4) Lead Geospatial Data Engineer - Invasive Species Management Projects

USACE South Atlantic District (10/2020 – Present)

Agile project management utilizing scrum methodology to engage both the customer and development team in monitoring and grooming the product backlog. Worked directly with engineering, analyst, and design teams in a continuous integration/delivery/deployment environment on enterprise-level GIS web portal projects following the software development life cycle (SDLC).

- Conducted customer interviews with end-users and subject matter experts to gather requirements and identify pain points. I translated these into product positioning strategy and proposed the value proposition of a geospatial web portal proposal. This proposal was accepted by the client, resulting in a new contract in which I acted as the primary contact between client management, end users, managers, and development teams.
- Built and administered an AWS cloud environment using EC2 and IAM. Utilized cloud DNS services using Route53 and storage resources in S3.
- Constructed a new geospatial data model to align application architecture with application requirements. Procured and cleaned existing client data using geoprocessing tools in QGIS Desktop. Converted the client's disparate tabular and spatial information to georeferenced multiLineString, MultiPolygon vector data layers. Migrated data to enterprise RDBMS using DB Manager tool in QGIS Desktop.
- Consolidated and managed client data using PostgreSQL (pgAdmin) with PostGIS extension to preserve geographic objects.
- Constructed an API to issue HTTPS and REST requests using Postman to serve data formatted as GeoJSON formatted objects. Display spatial data as WMS layers using LeafletJS and the Google Maps JavaScript API. Display tabular data as charts using D3.
- Supported the development team in designing UI and functional prototype of geospatial web application enabling the monitoring of aquatic invasive flora (*Eichhornia crassipes*, *Pistia stratiotes*) management projects throughout central and south Florida. This GIS solution is built to support future expansion into invasive fauna projects. UI elements created using LeafletJS.
- Represented the end user by testing new features and providing real-time feedback through the development process. Acted as the primary point of contact to resolve discrepancies between customer needs, user expectations, and development team performance.

(3/4) **Geospatial Project Manager - Utilities Network Infrastructure**

US Army Reserve & US Army National Guard Bureau (09/2019 – Present)

Hybrid (agile and waterfall) project manager for full Common Installation Picture (CIP) survey and data collection of subterranean gas, electric, Telecommunications (fiber optic, telephone), water (potable, wastewater, stormwater, separators/storage), petroleum/oil/lubricant, and alternative (solar, geothermal) infrastructure network at 10cm accuracy. Sites include Camp Robinson (AR), Camp Atterbury (IN), Fort Buchanan (PR), and Joint Forces Training Base Los Alamitos (CA).

- Leads overall communication between clients and stakeholders. This requires frequent on-site engagement with enlisted military leadership to gather and translate emergent utility infrastructure data needs into key customer requirements for critical infrastructure management. Communicated effectively across internal teams and with business stakeholders to ensure business requirements remain aligned with planned and in-progress deliverables.
- Leads internal team members through project execution. Generated and maintained detailed documentation explaining how to operate Ground Penetrating Radar (GPR), cable locator, and GIS field equipment, how to access and distribute the client's geospatial data, and protocols for maneuvering in client environments demanding high situational awareness (active military field operations). This GIS workflow is built to support future expansion into military geospatial underground

asset record collection projects by applying GPS theory to managing field assignments executed in closely coordinated teams.

(4/4) Lead Geospatial Analyst - Critical Infrastructure & Asset Management

OACISM IGI&S Common Installation Picture (CIP), US Army (09/2017 – 09/2019)

Hybrid (agile and waterfall) team lead for full installation geospatial data collection, migration, and analysis of immovable asset spatial records (Real Property, including physical security assets) for some of the largest Army installations in the world by total area: Fort Bliss and Yuma Proving Ground. Other Army installations completed: Rivanna Station, Fort Detrick, JSMC Lima, Anniston Army Depot. Project success enabled by obsessive attention to detail.

- Full client engagement with civilian leadership to gather and validate customer needs, enable team execution to scope, convey project status, oversee final delivery/acceptance. Utilized technical infrastructure information to produce cartographic products through static and web mapping. Utilized Microsoft Visio to construct diagrams communicating project planning and workflows for internal consumption and client engagement.
- Directly accountable for geospatial data quality while implementing Army adaptation of DoD Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) metadata and governance standards. Advised team members by example, documentation, and training on the proper handling, management and usage of CUI geospatial data and imagery throughout the pipeline. This includes best practices for government data procurement and quality assurance.
- Worked accurately in a detail-oriented environment using Python scripting environments in ArcMap Desktop, ArcGIS Pro, ArcGIS Online, and ArcCatalog in an ArcGIS Enterprise environment to automate geoprocessing tasks using Python scripts, georeference data in raster and vector formats (including Computer Aided Design and Drafting (CADD)), perform metadata quality control, and execute overall quality assurance. OpenDroneMap was used to post-process and stitch sUAS imagery collected in the field. Experience compiling geographic data from a variety of sources including censuses, field observation, satellite imagery, aerial photographs, tabular data, databases, and existing maps. This GIS workflow is built to support future expansion into military geospatial asset record management projects.
- Met project deadlines by working efficiently and conveying to junior analysts how assigned tasks relate to project goals.

Formal Education

University of California, Davis – Davis, California (09/2008 - 06/2012)

Bachelor of Science in Avian Sciences, College of Agricultural & Environmental Sciences

Minors: (1) Geographic Information Systems; (2) Wildlife, Fish & Conservation Biology

Certifications

- Certified Scrum Master
- AWS Certified Solutions Architect, Associate
- Hofstede Insights Accredited Internal Cross-Cultural Consultant

Technologies Used

- Geospatial Data Production & Analysis: Esri ArcGIS Pro, Esri Enterprise ArcGIS Server, Esri ArcMap 10.X, QGIS Desktop, Web AppBuilder, PostgreSQL / PostGIS, Python / Jupyter Notebooks, ESRI Production Mapping (Data Reviewer), Model Builder, Google Earth Engine, AutoCAD
- Web Development: Postman, Google Maps JavaScript API, ReactJS, git, CSS
- Scripting/Markup languages: HTML, JSON, YAML

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- Cloud Administration: Amazon Web Services, Google Cloud Platform, Microsoft Azure
- Field Data Collection: OpenDroneMap, Malaa Ground Penetrating Radar, 3M Dynatel 2273, Trimble Geo7x, TerraSync, RangeFinder, Windows Mobile Device Center
- Graphic & Concept Design: Figma, Adobe Creative Cloud (Illustrator, XD, Photoshop, InDesign), Solidworks
- Visual Prototyping & Virtual Facilitation: Mural, Lucid, MindMeister
- Office & Communication: Excel, Word, Powerpoint, Access, Sharepoint, Visio