

Summary

- Currently employed as a Senior Software Developer and Team Lead for Geographic Information Systems Company
- 6+ years of Software Development experience with specialization in data and visualizations
- Looking for Senior Web Developer positions that align with values of openness
- Professional experience with Python, JavaScript and SQL; Academic experience with C/C++/C#
- Avid power-user of Linux based software that is constantly researching the latest trends for package management, maintenance, and administration
- Leverages foundational education in Sociology that drives a process oriented perspective and in Theatre that established core design and communication fundamentals to efficiently manage technical projects.

Professional Experience

GeoCGI, Senior Software Developer, Okinawa, Japan, June 2024 - present

- Leads an 8-person DevSecOps team across multiple projects; manages and administers enterprise information systems environment, deploys and operates 20 web applications throughout all stages of development, triages and fixes new issues.
- Directs and initiates code review process; Aligns CI/CD pipelines with industry standard engineering process ensuring that production code is secure while also mentoring junior employees in clean code practices.
- Architect and direct the overhaul of web applications; Generates complex custom HTML Web Components that create bespoke user modules utilizing 3rd party libraries to create encapsulated styles with accessibility in mind that can persist in changing framework environments.
- Spearhead the modernization of a public-facing website; rearchitected legacy backend services into Node.js/Express.js microservice system, implemented OS-level authentication protocols to reduce security vulnerabilities.
- Manages the development of new web application for data records management; designed database schema and application styling based on customer requirements, incorporated coordinated user acceptance testing to validate final product.
- Collaborate with IT infrastructure teams; validate system compliance with stringent DoD security specifications.
- Oversee the creation and deployment of Python tools; automates server administration and data management tasks.
- Launched testing implementation strategy; Developing plan to implement new testing technologies for unit testing and end-to-end testing based upon users needs and software requirements.

GeoCGI, GIS Programmer, Okinawa, Japan, August 2023 – June 2024

- Initiated source code management procedures; Started using Git version control system to maintain projects, guided coworkers on how to use it, and created standardized policies to ensure consistency across projects.
- Primary developer for internal program management product; designed and completed the product for planning, problem-solving, and prioritization, used by multiple teams totaling over 25 users.
- Developed a suite of Python tools; automated data preparation and analysis, optimized existing code by debugging inefficiencies resulting in over 75% improved processing time on large feature datasets.
- Authored updated technical documentation; developed a standard operating procedure for data collection, established repeatable methods to determine the efficiency and accuracy of new workflows.

United States Air Force, GIS Projects Lead, Ellsworth Air Force Base, SD, Jan 2022 – July 2023

- Acted as GIS Supervisor in Charge while deployed; collaborated with 13 data steward organizations to provide consolidated and up to date data, performed monthly data QA/QC according to organizational standards in database of over 400 tables with 3200 average edits per month
- Oversaw project lifecycle; assigned tasks and facilitated team communication, finished 76 projects
- Managed new employee first year training program; assured early and comprehensive completion for 5 individuals
- Committed to design of new weekly professional development training program; topics covered a wide range of GIS and land survey trainings for team of 15 members greatly expanding unit's capability toolset
- Created road network model; utilized for transportation analysis, quantified Fire Emergency Response Times

United States Air Force, GIS and Engineering Support, Ramstein Air Base, Germany, Dec 2019 – Dec 2022

- Develop python scripts and tools; removed data entry labor and verified data accuracy/integrity, included tools that convert and project AutoCAD drawings digital library into various spatial formats, improved data intake pipeline efficiency and quality, saved over 400 work hours
- Composed interactive web applications; honed leadership decision-making capabilities, empowered base development plan revisions and contracting fund allocation
- Migrated installation database; upgraded from version 3.1.1 to 4.0.1.3 of the Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE)
- Provided substantial planning and data management support for Operation Allies Refuge; Ramstein AFB formed a tent city capable of housing 20,000 Afghanistan evacuees within a week, directly assisted Civil Engineering strategy

Education

M.S. Spatial Data Science Pennsylvania State University, May 2023

- Summa Cum Laude, 4.0/4.0 GPA
- Authored graduate level research thesis; A Time-Lagged Intersection Method for Mapping and Localization from Monocular Camera System. Tested a new computational method; localized and mapped data from autonomous vehicle sensors.
- Explored computer vision techniques in object detection; Built a classification system to identify bounding boxes for typical road-side infrastructure features such as signs and fire hydrants.

Graduate Cert., Geospatial Programming & Web Map Development Pennsylvania State University, May 2022

- Created full-stack transportation space analysis application; Utilizing only open-source tools created a website back-end through Django, a front-end through Leaflet, and Postgres database with PgRouting extension. Used open data from Los Angeles city to build accurate transportation model and tools to calculate transportation times
- Engineered a platform for distributed spatial computing; Utilizing AWS cloud based servers as the orchestrators, created a platform that would allow users to upload spatial processing jobs to the system. The system had a separate component that would allow users run programs that would use their computer as part of the distributed network to process those jobs and post the results for download.

B.A., Sociology and Theatre Case Western Reserve University, May 2015

Undergraduate Coursework Central Oregon Community College, 2011-2012

- Dean's List, 3.58/4.0 GPA

Diploma Redmond High School, May 2012

- Passed 5 AP course exams

Training and Certifications

- Certified Cloud Practitioner, *Amazon Web Services (AWS)*
- Security+, *CompTIA*
- CS50 Web Programming with Python and JavaScript, *HarvardX/edX*
- ArcGIS Enterprise: Administration Workflows and Configuring a Base Deployment, *ESRI*
- Deploying and Maintaining Multiuser Geodatabase, *ESRI*
- Creating and Editing Data with ArcGIS Pro and Essential Workflows, *ESRI*
- Python for Everyone, for Map Automation, and for Geoprocessing Workflows, *ESRI*
- Trimble SX10 Surveying and Scan Processing
- Active U.S. DoD Secret Security Clearance

Software and Tools

- **Programming Languages:** JavaScript, TypeScript, HTML/CSS, REST API, Python, C++, SQL, Bash
- **Web Frameworks:** Django, Express.js, Bootstrap, ESRI Calcite Design System, Sequelize
- **Database Management Software:** Postgres, SQLServer, Oracle, SQLite
- **Python Libraries:** Pandas, Numpy, Arcpy, GeoPandas, QT, PyZMQ
- **APIs:** ArcGIS JavaScript Maps SDK, PostGIS, Leaflet
- **Operating Systems:** Linux (Ubuntu/Arch-Based), Windows 10, Windows 11
- **Spatial Software:** ArcGIS Pro (3.3), ArcMap (10.8), ArcGIS Online, QGIS (3.22), ArcGIS Enterprise Server, Portal for ArcGIS
- **Other Technology:** Git Source Code Management System, Docker virtualization, Node.js, AWS Cloud, VSCode

Languages

- **English,** Native
- **Japanese** Japanese Language Proficiency Test, Level N5