

Professional Experience:

Lead Software Engineer – Theorem Geo Inc. July 2019 – Present

- Coordinated and lead development, enhancement and ongoing maintenance of software products
- Architected and executed migration from AWS to Google Cloud Platform of application infrastructure
- Designed applied machine learning applications to productize asset extraction and computer vision technologies
- Product owner for building a spatial video application system and lead product roadmap and re-design efforts

Programmer/Technology Solutions Administrator – ArborMetrics Solutions August 2016 – July 2019

- Software Developer: responsible for web and mobile platforms as well as backend architecture and design
- Developed software in .NET(C#), JavaScript, Python, SQL and the ESRI suite of GIS dev tools
- Business development support; on site customer visits, conferences, and consultations
- Project Management in support of AMS Technology Solutions development

GIS Coordinator – James Madison University (Facilities Engineering Dept.) June 2015 – August 2016

- Oversaw the University's Facilities Engineering Geographic Information System (GIS)
- Maintained, updated, and expanded the GIS capabilities of the department – planned an enterprise migration
- Researched and developed custom GIS applications, automation scripts, and mapping plugins-ins

GIS Developer – James Madison University May 2016 – August 2016

- Application design and development creating a responsive web app for visualizing History Department research
- Virginia Foundation for the Humanities – Grant supported, as Co-Principal Investigator

GIS Technician – James Madison University (Facilities Engineering Dept.) May 2014 – June 2015

- Managed and expanded GIS resources to facilitate geospatial analysis in support of engineering projects
- Collected and updated existing data using advanced survey grade GPS units (TSC3 and R10)

Education:

University of Wisconsin - Madison – Madison, WI May 2019

- **M.S. Cartography and GIS Development** | GPA: 4.0
- Concentration: GIS Development and Programming

James Madison University – Harrisonburg, VA May 2014

- **B.S. Geographic Science** | Minor, Environmental Science | Major GPA: 3.7, Overall GPA: 3.5
- Concentration: Environmental Conservation, Sustainability and Development

Skills:

Geoprocessing and Spatial Analysis

Geodatabase Management
Enterprise GIS Design
Web Application Development
Scripting – ArcPy, JS, SQL
ArcGIS UI Customization
Model Builder
GPS/Survey Data Collection
Image Analysis
Cartographic Design
Spatial and Statistical Analysis
Coordinate Systems and Projections

Software and Development

ArcGIS – up to latest 10.x
(ArcMap, ArcCatalog, ArcGIS Online, Model Builder,
ArcGIS Pro, ArcGIS for Server)
AutoCAD – Civil3D
Trimble Access/ TerraSync
Trimble Business Center/Pathfinder Office
Mapcom Systems M4
GoogleEarth/Maps Engine
Boundless and QGIS
Mapbox Studio and TileMill
CartoDB + CartoDB.js

Software (Cont.)

Python Scripting, GDAL/OGR, ArcPy
JavaScript, node.js, HTML, CSS, React
C# & .NET Frameworks, Java, Xamarin
MS SQL Server/PostGRES-PostGIS/General DBMS
GitHub/GitLab/Versioning
Leaflet.js, Googlemaps API
Openlayers API, Esri JavaScript API
FME Universal Translator
Adobe Illustrator/InDesign
Survey Grade Trimble GPS Units (Juno, Geo XT,
GeoExplorer 5, TSC2, TSC3, R8, R10)