# Bradley A. Andrick   andrickba@gmail.com | Charlotte, NC

## 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

## 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)

**Teaching Assistant** – James Madison University …………………………………………………………… Aug 2013 – May 2014
- Integrated Science and Technology/Geographic Science Department
- Assisted Professors with grading, lectures, and testing

**Engineering and Planning Intern** – Shentel (Telecommunications) …………………………………… May 2013 – May 2014
- Participated in the transfer of data from AutoCAD into a telecommunications GIS (M4)
- Helped to import and export outside and inside plant equipment data using FME Universal Translator

**Percussion Instructor** – Central High School …………………………………………………………… June 2009 – Aug 2013
- Coordinated and taught a group of 10-15 middle and high school students
- Wrote music and drill for the drumline and percussion sections of the marching band

**Buildings and Grounds Assistant** – Shentel (Telecommunications) …………………………………… June 2009 – Aug 2012
- Responsible for conducting maintenance at properties throughout tri-state company service area
- Completed work orders while operating company vehicles and maintenance machinery

## Conference Presentations:

**"Using the ArcGIS JavaScript API in a Hybrid Geospatial Architecture"**
Esri Developer Summit, Palm Springs CA (Virtual), 2021 (expected, already accepted)
    Presentation note:
        **Bradley Andrick**'s presentation highlights the power of the ArcGIS API 4.x for JavaScript with GeoJSON data using the GeoJSONLayer class to satisfy a hybrid geospatial architecture requirement.

**"Using Spatial History to Challenge the Exclusive Past"**
National Council for Public History Conference, Baltimore MD, 2016
    Presentation note:
        **Dr. Kevin L. Borg** (Associate Professor, History) and **Bradley A. Andrick** (GIS Coordinator, Facilities Management) presented at the National Council for Public History conference. **Borg** and **Andrick's** project shows how spatial analysis can be within the reach of local historical societies and community groups.

**"Designing a GIS for Campus: Planning, Development, and Maintenance"**
Virginia Chapter of the Association of Physical Plant Administrators (VAPPA) Conference, Harrisonburg VA, 2016
    Presentation note:
        **Brad Andrick**, JMU & **Dale Abbott**, VHB – Discusses how JMU's Facilities Management Geographic Information System has progressed. Specifically; how it was started, where it currently stands, and where it is going. Additional topics will also include general GIS planning from a contractor perspective.

**"Leveraging ArcGIS Online: Cloud Mapping and Mobile Phone Data Collection"**
Regional GIS User Group Meeting, Harrisonburg VA, 2015
    Presentation note:
        **Bradley Andrick** presents on the use of mobile phone GPS data collection capabilities and current technology. Topics include history of mobile devices and GPS, cloud GIS software comparisons and how to leverage these technologies along with existing GIS infrastructure to lower costs and increase mapping capabilities.

## Technical Skills:

| Geoprocessing and Spatial Analysis | Software and Development | Software (Cont.) |
|---|---|---|
| Geodatabase Management | ArcGIS – up to latest 10.x | Python Scripting, GDAL/OGR, ArcPy |
| Enterprise GIS Design | (ArcMap, ArcCatalog, ArcGIS Online, Model Builder, | JavaScript, node.js, HTML, CSS, React |
| Web Application Development | ArcGIS Pro, ArcGIS for Server) | C# & .NET Frameworks, Java, Xamarin |
| Scripting – ArcPy, JS, SQL | AutoCAD – Civil3D | MS SQL Server/PostGRES-PostGIS/General DBMS |
| ArcGIS UI Customization | Trimble Access/ TerraSync | GitHub/GitLab/Versioning |
| Model Builder | Trimble Business Center/Pathfinder Office | Leaflet.js, Googlemaps API |
| GPS/Survey Data Collection | Mapcom Systems M4 | Openlayers API, Esri JavaScript API |
| Image Analysis | GoogleEarth/Maps Engine | FME Universal Translator |
| Cartographic Design | Boundless and QGIS | Adobe Illustrator/InDesign |
| Spatial and Statistical Analysis | Mapbox Studio and TileMill | Survey Grade Trimble GPS Units (Juno, Geo XT, |
| Coordinate Systems and Projections | CartoDB + CartoDB.js | GeoExplorer 5, TSC2, TSC3, R8, R10) |

## Community Service & Honors:

- GIS Consulting – pro bono, Asheville Greenworks, Asheville NC, 2019
- Volunteer, Energy Savers Network, Asheville NC, 2018
- GIS Consulting – pro bono, Friends of Connect Buncombe, Ashville NC, 2017
- Trail Maintenance Volunteer, JMU Geography Club, Harrisonburg VA, 2013

- Phi Kappa Phi, (Graduate Level Academic Honor Society) joined 2018
- Gamma Theta Epsilon, (Geography Honor Society) joined 2012
- Phi Theta Kappa Honor Society, (Associate Level Academic Honor Society) joined 2010