

RYAN BOBO

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OBJECTIVE

Experienced GIS professional with a Master's degree in Applied Geography and over a decade of expertise in utility mapping. Seeking a GIS developer role to leverage advanced technical skills in designing, developing, and implementing innovative GIS solutions to address complex spatial challenges.

EDUCATION

Texas State University, San Marcos, TX

Master of Applied Geography, GIS

December 2023

- GPA: 4.0

- Relevant Coursework: Geocomputation, Web Mapping, GPS and GIS, GIS II

Bachelor of Science, Geography – Water Studies

December 2013

- GPA: 3.2

- GIS and Environmental Interpretation Certificates

Christian-Albrechts-University, Kiel, Germany

June 2013

- GPA: 4.0

- Project manager of a team-based study abroad

EXPERIENCE

Texas State University – Network Operations, San Marcos, TX

February 2014 - Present

GIS Specialist

- Manage, design, and maintain fiber optic and telephony OSP infrastructure using GIS (M4 solutions).
- Coordinate and advise new OSP construction, cable pulls, and fiber splicing.

Texas State University – Network Operations, San Marcos, TX

August 2012 – February 2014

AutoCAD Technician

- Create diagrams of OSP enclosures and communication rooms using AutoCAD.
- Georeference diagrams using Raster Design and imported them into M4 solutions.

Hays Environmental Consulting, San Marcos, TX

June 2012 – September 2012

GIS Intern

- Generated topographic maps from LiDAR, and assisted in residential facility plans and septic design.

PROJECTS

Indoor Wi-Fi Occupancy Analysis:

- Leveraged Python to process, anonymize (Faker), filter (Pandas), and visualize (Matplotlib) Wi-Fi logs of a large multi-story building to estimate indoor occupancy.
- Implemented a novel method of Wi-Fi floor-level occupancy analysis using user-role data.

Find Your Path:

- Developed an interactive web map using the ArcGIS JavaScript API to assist users in finding hiking trails.
- Feature for users to input trail issues/hazards to a hosted feature layer, enhancing trail maintenance efforts.
- Integrated a Weather API to provide current conditions and cumulative rainfall totals for judging trail health.

Transpropagation:

- Developed a Python-based ArcGIS tool for modeling line-of-sight outside wireless signal propagation.
- With the use of the Friis Transmission Equation, the tool outputs the expected signal coverage and signal power providing insights into the effectiveness of the placement of outdoor wireless access points.

SKILLS

Software: ArcGIS, FME, M4 Solutions, QGIS, Erdas Imagine, PostgreSQL, MSSMS, AutoCAD

Programming Languages: Python, SQL, Arcade, JavaScript, HTML, CSS, Git

Tech/Tools: Pandas, Matplotlib, REST, Leaflet, ESRI Technologies, LiDAR