MATTHEW PONDER

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EDUCATION

Texas State University

Master of Applied Geography in Geographic Information Science (GIS) **2014 - 2016**

Baylor University

Bachelor of Science in Environmental Science **2009 - 2014**

Minor in Business Administration

TEACHING EXPERIENCE

GEO 1410 – Physical Geology Lab

- Served as an Instructional Assistant for the first year, teaching students basic geological principles and developing teaching materials.
- Became the Head Instructional Assistant for the second year of my assistantship, conducting my regular duties along with coordinating lesson plans, serving as a liaison between Geology professors and lab assistants, ordering lab supplies, and serving as an escalation point for other instructional assistants regarding grading and other student and lab issues

PROFESSIONAL EXPERIENCE

Oncor Electric Delivery

GIS Analyst II **June 2016 - Current**

- Map electric transmission infrastructure using field GPS data and engineering diagrams
- Aided in the integration of a new GIS software package for mapping Oncor fiber optic assets
- Created and manages a spatial network model for transmission fiber optic infrastructure
- Serves as a liaison between internal stakeholders and third party project managers to ensure proper communication and acceptance of Oncor Business Requirements for fiber optic mapping projects

Guadalupe Valley Electric Cooperative

GIS Analyst **April 2016 – June 2016**

- Created GIS databases and maps for electric distribution and transmission infrastructure
- Updated and maintained a GIS database of GVEC owned land parcels to identify land use and development projects
- Ensured data integrity by conducting topology and QA/QC on spatial datasets
- Produced periodic maps of new distribution line construction for oil and gas companies operating within GVEC territory

Texas State University

Head Instructional Assistant for Physical Geology Lab **August 2014 - May 2016**

- Instructed students in basic geologic principles such as mineral identification, geologic structures, and groundwater processes
- Developed teaching materials and prepared/administered exams
- Coordinated lesson plans with Physical Geology Instructional Assistants on a weekly basis to ensure compliance with the approved curriculum

Austin Energy

Business Systems Analyst Intern **June 2015 - August 2015**

- Created a GIS database for all multifamily properties in the Austin Energy service area
- Participated in public outreach events to provide information to local stakeholders on the Energy Conservation Audit and Disclosure (ECAD) ordinance
- Created an interactive online map for the Austin Energy website, which identified the territory of the ECAD ordinance helped stakeholders determine whether the ordinance applied to their properties
- Analyzed energy usage for multifamily properties in the Austin area to identify and display potential case studies
- Successfully implemented energy efficiency framework improvements for multifamily properties in Austin

Texas Commission on Environmental Quality

Environmental Intern **May 2014 - August 2014**

- Conducted background research and contributed to an initial draft of a EPA published Nonpoint Source success story for the North Concho River in San Angelo, Texas
- Mapped Nonpoint Source best management practices to determine their potential connection with water quality improvements
- Analyzed surface water quality data for potential water quality improvements related to Nonpoint Source Program activities
- Updated and developed TCEQ Nonpoint Source project fact sheets, which included writing and editing content as well as utilizing GIS for the creation of project maps
- Developed project maps for EPA funded Nonpoint Source projects in the EPA Grants Reporting and Tracking System (GRTS) database
- Attended relevant watershed stakeholder meetings and Nonpoint Source Team meetings

ACADEMIC RESEARCH

Land Cover Change in the Eagle Ford Shale

Using a combination of GIS, remote sensing software, and imagery analysis, I determined the level of land cover change that occurred in Karnes County, Texas as a result of oil and gas production. My research was conducted using a literature review of peer-reviewed research, and methodology approved by my graduate advisor and committee (following an in-depth proposal defense). My final research was approved and published by the Texas State University Geography Graduate Department.

The Dichotomy of East and West: A Look at the Differing Geographies of Two Central Texas Towns on Opposite Sides of Interstate 35

Wrote an in-depth analysis of how two Central Texas cities (Redwood, TX and Wimberley, TX) have developed and changed over the course of their history. Conducted field visits to the towns as well as interviews with local residents. Analyzed the various geographic and demographic differences between the cities and compared their growth and development in relation to these factors.

Copper and Free and Total Chlorine Concentrations in Drinking Water Fountains

Measured copper and chlorine concentrations in drinking water fountains in two buildings on the Baylor campus using EPA approved methods. Collected samples from 2 high traffic water fountains and 2 low traffic water

fountains for each building and conducted an unpaired t-test and chi squared test to determine any statistical similarities between copper and chlorine concentrations in new and old buildings and high and low traffic water fountains. Used the Hach DR 2800t spectrophotometer to measure copper and chlorine concentrations in the water samples.

Modeling Sulfur Dioxide Dispersion from Select Point Sources in Houston, Texas
Created an extensive ArcGIS Model using standard Gaussian Plume Model parameters to represent the atmospheric dispersion of Sulfur dioxide from point source industrial sites in the Houston, Texas area. Used data taken from various TCEQ air quality monitoring stations around Houston.

Energy Feasibility Study
Assessed the feasibility of a sustainable energy source for a selected city. Researched demographic information for the chosen city, analyzed current energy use trends, determined the available markets for certain energy sources in the area using socioeconomic information, and compared the abundance and availability of natural resources for the city. Estimated the commercial and residential costs of shifting the community from one source of energy to another, using current energy prices and the amortization of capital costs associated with building new infrastructure. Included an extensive amount of accurate information and detail to theoretically present our energy use plan to the City Council of our chosen city.

Pharmacokinetics and Dynamics of SSRIs and their metabolites in the Environment
Conducted extensive research using only peer reviewed literature on the movement of trace amounts of SSRIs (a class of antidepressants) and their metabolites in the environment and in biota. Documented the effects of those substances on aquatic species and aquatic food chains. Compiled all of the information collected into a well-developed and highly organized technical report, which included text and graphs showing correlations between SSRI concentration and morphological change in certain aquatic species.

SOFTWARE PROFICIENCY

ArcGIS (ArcMap, ArcScene, ArcGlobe, ArcCatalog)
Intergraph G/Technology
ERDAS Imagine
Quantum GIS
Microsoft Office (Word, Excel, PowerPoint, Access)
Microsoft Windows
SQL
Python Scripting and Automation

SKILLS AND CERTIFICATIONS

Environmental Systems Research Institute Training Center

- Surface Modeling Using ArcGIS
- 3D Analysis of Surfaces and Features Using ArcGIS
- 3D Visualization Techniques Using ArcGIS
- Deriving Rasters for Terrain Analysis Using ArcGIS
- Using Raster Data for Site Selection
- Basics of Python for ArcGIS
- Python Scripting for Map Automation

- Python Scripting for Geoprocessing Workflows

Hexagon Safety and Infrastructure

- G/Technology Fiber Optic Works – User and Admin Training Certification

American Heart Association

- Adult, Child and Infant CPR
- OSHA Standard First Aid and Emergency Care

LANGUAGES

English - Native Language

Italian - Conversational (Study Abroad - Baylor in Tuscany) **May-June 2012**

RELEVENT COURSEWORK

GIS and Geography

Geographic Information Systems
Geographic Information Systems II
Advanced GIS Analysis
Teaching Geography
Geographic Analysis
Geographic Applications of Remote Sensing
Applied Research Design and Techniques
GPS and GIS
Technical Foundations of Math and GIS

Business Administration

Marketing
Management
Personal Finance
Entrepreneurship
Accounting

Environmental Science

Environmental Health
Ecotoxicology
The Environment and Energy
Wildlife Management
Principles of Ecology
Environmental Chemistry

MEMBERSHIPS AND PROFESSIONAL ORGANIZATIONS

Association of American Geographers

Member since 2014

Boy Scouts of America - Troop 157, Round Rock, TX

Eagle Scout

- Achieved the Rank of Eagle Scout in March 2009 after advancing through the ranks of Tenderfoot, 2nd Class, 1st Class, Star and Life Scout
- Planned and carried out an extensive community service project, contacted organizations in the community to determine who would best be served by my project, built two porch swings with the help of family and volunteer Boy Scouts, and raised the resources to fund the project by persuading local businesses to donate money and supplies
- Provided the Pflugerville Assisted Living Center with a pair of sturdy, safe, and attractive porch swings as a result of my project

- Served in numerous leadership positions within the troop: Patrol Leader, Troop Guide, and Assistant Senior Patrol Leader

Baylor Geological Society
Student Chapter of the American Association of Petroleum Geologists

- Involved in various networking events with the organization, and participated in several community service projects with the organization such as Baylor's Stepping Out

Baylor S.E.T.A.C.
Student Chapter of the Society of Environmental Toxicology and Chemistry

- Participated in several networking events and conferences, and worked on a Carbon Offset program which involved planting trees in a nearby wetland

Pi Kappa Phi Fraternity
Head Homecoming Float Chairman

- Managed the construction of the Pi Kappa Phi Homecoming Float
- Formed a committee, delegated responsibilities, organized partnership with a Baylor sorority, monitored construction and ensured safety, managed a budget, and drafted a design for the float