

Matthew Walter

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Education

University of Delaware, MS in Geography 2018 –
Teaching Assistant for the Department of Geography

University of Delaware, BA in Environmental Studies 2014 – 2018
Concentration in Environmental Planning
Minor in Public Policy
Graduate Certificate in Geographic Information Systems (GIS)

Research Experience

GIS Work – Joseph R. Biden, Jr. School of Public Policy and Administration, 2019
University of Delaware, Dr. Nina David Spring

- Manage GIS data for joint plans in Michigan
- Create maps of joint plans in Michigan

GIS Work – Lerner Business and Economics School, University of Delaware, Dr. 2019
Sabrin Beg Spring

- Create time series Normalized Difference Vegetation Index (NDVI) maps of Bangladesh farms

GIS Research Assistant – Department of Public Policy, University of Delaware 2017 – 2018
Assist University of Delaware Professor Dr. Nina David with research on the Lancaster Inter-Municipal Committee by working with GIS data.

- Acquire GIS data from Pennsylvania Municipalities
- Create compressive maps for the research project
- Maintain spatial database
- Perform geospatial analysis

Research Assistant - Department of Geography, University of Delaware 2014 – 2018
Assist PhD student in quantifying the hydrological ecosystems services in Wilmington.

- Create maps of study area
- Set up stemflow and throughfall collectors and collect samples
- Measure Leaf Area Index with the LI-COR LAI 2000 plant canopy analyzer
- Attend a public outreach event
- Calculate percentage of rainfall converted to stemflow

Teaching Assistant

Know your Satellites

Summer 2019

- Assist with creating scripts in Google Earth Engine with remote sensing applications such as filtering imagery, classifications, normalized difference indices, and raster calculations
- Create remote sensing and GIS labs for Google Earth Engine

Proseminar in Environmental Science

Spring 2019

- Manage course website, create and grade assignments
- Lecture and provide professional development advice for students in topics such as CVs, resumes, and cover letters

Conservation: Natural Resources

Fall 2018

- Create assignments and exams for various topics in environmental science (pollution, water quality, food scarcity, climatology, etc.)
- Grade assignments and work with students to understand materials

Other Employment

Biological Aide - Delaware Division of Fish and Wildlife

2014 – 2019

Department of Natural Resources and Environmental Control (DNREC), Smyrna, DE
Educate children on aquatic ecosystems, provide educational materials to teachers, and work for hunter education and land acquisition.

- Filing and updating GIS data
- Recording and analyzing hunter data
- Create aquatic education materials for educators
- Run educational fishing programs for children
- Provide aquatic information at the nature center
- Teach aquatic education to 5th grade children on field trips
- Design graphic work to be used for educational material

Poster Presentations

American Association of Geographer's Annual Meeting,

Spring 2019

Analyzing the Health of Wetland Buffers in Delaware using Land Cover

Delaware Environmental Monitoring Summit,

Spring 2019

Analyzing the Health of Wetland Buffers in Delaware using Land Cover

Graduate Students' Forum for Research and Creative Works,

Spring 2019

Analyzing the Health of Wetland Buffers in Delaware using Land Cover

Human and Climate Series III: Water Management and Policy: Spring 2019
Local and Global Perspectives Symposium,
Analyzing the Health of Wetland Buffers in Delaware using Land Cover

Delmarva GIS Conference, Spring 2018
Using GIS to Measure the Effectiveness of Inter-Municipal Planning

Research Grants

Dr. John R. Mather Graduate Research Fellowship Summer 2019

Awards

First Place Poster, Human and Climate Series III: Spring 2019
Water Management and Policy: Local and Global Perspectives Symposium

Special Merit Award in Environmental Studies Spring 2018

Extracurricular

Treasurer and Advisor - University of Delaware Table Tennis Club 2015 – 2019

Additional Skills

Geospatial Analysis

ArcMap, ArcGIS Pro, ArcGIS Online (proficient)

QGIS (basic)

Google Earth Engine (proficient)

ENVI (moderate)

ArcGIS Python scripting (moderate)

Jupyter notebooks (basic)

R Studio (basic)

Quantitative Data Analysis

Matlab (moderate)

Excel (proficient)

JMP (moderate)

Fortran (moderate)

Wetland Monitoring

Wetland and watershed delineation (basic)

Delaware Wetland Rapid Assessment (basic)

Other Technical Skills

Microsoft Word and PowerPoint (proficient)

Adobe Photoshop and Illustrator (moderate)

Adobe Premiere and After Effects (basic)