

NICHOLAS MANNING

Department of Geography
Biogeography & Landscape Dynamics Lab
Kent State University, Kent, Ohio
325 South Lincoln Street, 44242

440-822-6174
nmannin4@kent.edu

EDUCATION

Kent State University | Kent, OH 2019
Summa cum laude (GPA: 3.93), Phi Beta Kappa
B.S. Geology (Environmental Geology Concentration)
B.A. Environmental Studies
Senior Thesis Title: *What's in the Water? An Analysis Off the Shore of Villa-Angela Beach Using the KSU Spectral Decomposition Method*

HONORS & AWARDS

Geography Honors Award, Kent State Department of Geography 2019
Outstanding Geology Major, Kent State Department of Geology 2019
John F. Hall Senior Award, Northern Ohio Geological Society 2019
Bauer Experiential Learning Grant, Kent State Department of Geology 2019
Glenn W. Frank Scholarship, Kent State Department of Geology 2018
Phi Beta Kappa, Kent State University 2018

RESEARCH EXPERIENCE

Biogeography Research Assistant, Kent State University 2019-Present
Geography Department
Advisor: Timothy Assal

- Conduct geospatial analysis and image processing by producing efficient R and Google Earth Engine scripts to utilize large remote sensing data and create publication-quality graphics
- Organize digital code repositories and communicate digitally with colleagues

This work resulted in an under-review manuscript and acknowledgements in scientific publications, and was funded through multiple United States Geological Survey grants.

Student Undergraduate Laboratory Intern, Argonne National Lab
Energy Systems Division
Advisor: Hui Xu

2020

- Identified major trends in forest species distribution and management practices by aggregating and re-sampling state-level forest inventory data
- Modelled greenhouse gas reduction potential from the adoption of precision agriculture technologies and green ammonia

This work resulted in an oral presentation at Argonne National Lab and was funded through the U.S. Department of Energy's SULI program.

Undergraduate Research Assistant, Kent State University
Department of Geology
Advisor: Joseph Ortiz

2018-2019

- Identified primary contaminants flowing into Euclid Creek and determined potential impacts through novel remote sensing statistical methods
- Supported multi-disciplinary research efforts on a 2-week expedition in Lake Erie in collaboration with Environment Canada

This work resulted in an oral presentation at a NASA facility and a poster presentation at Kent State University and was funded through the Ohio Space Grant Consortium Scholarship

Undergraduate Research Assistant, Kent State University
Department of Geology
Advisor: David Singer

2018-2019

- Analyzed extracted colloids from acid-mine drainage contaminated soil using solid phase characterization techniques
- Assisted graduate students in field work, sample collection, and sample preparation

This work resulted in an oral presentation and a poster presentation at Kent State University and was funded through the Summer Undergraduate Research Experience Program.

PRESENTATIONS

Oral Presentations

1. **Manning, N.**, Xu, H. “[Woody Biomass Analysis and Greenhouse Gas Reduction Potential Using Precision Agriculture](#)” ANL Learning Off the Lawn, 2020
2. **Manning, N.**, Ortiz, J., “[Water Quality Assessment of Euclid Creek Using Remote Sensing and VPCA Analysis](#)” Ohio Space Grant Consortium Conference, 2019

Poster Presentations

1. **Manning, N.**, Ortiz, J., “[Using VPCA to Determine Main Constituents in Euclid Creek](#)”, Environmental Science Design and Research Initiative, 2019
2. **Manning, N.**, Singer, D. “[Separation of Acid Mine Drainage Colloids by Centrifugation](#)”, Undergraduate Research Symposium, 2019

PUBLICATIONS

Submitted Manuscripts

1. Assal, T., Steen, V., Caltrider, T., Cundy, T., Stewart, C., **Manning, N.**, Anderson, P. “Monitoring long-term riparian vegetation trends to inform local habitat management in a mountainous environment” (under revision in *Remote Sensing in Ecology and Conservation*)

PROFESSIONAL TRAINING

Data Science: Wrangling, HarvardX, May 2020

Awarded for completion of the online “Data Science: Wrangling” course

PROFESSIONAL AFFILIATIONS

Future Environmental Consultants of America, Former Vice-President 2019

Led weekly meetings, worked with president to grow a new organization, communicated with industry leaders to foster collaborations.

Phi Beta Kappa, Member 2018-Present

Phi Sigma Pi National Honor Fraternity, Former Fundraising Chair 2018-2019

Created and organized interactive events to raise funds for the chapter and for scholarships. Presented weekly updates and attended board meetings.

VOLUNTEER EXPERIENCE / COMMUNITY SERVICE

Green Energy Ohio, Grant Writing Intern 2019

Proyecto Raices, Language Tutor 2018

LANGUAGES

English: Native Language

Spanish: Novice Listener, Novice Speaker, Intermediate Reading and Writing

COMPUTER / TECHNICAL SKILLS

Software: Google Earth Engine, R Studio, R, Github, Slack, Microsoft Office Suite, ESRI ArcGIS Suite, TerrSet, Google Office Suite, EarthExplorer, StatFi, ENVI/IDL

Languages: R (competent), Javascript for GEE (competent)

REFERENCES

Dr. Timothy Assal, Assistant Professor
Department of Geography
Kent State University
325 South Lincoln Street, 44242
330-672-2046
tassal@kent.edu

Dr. Hui Xu, Environmental Scientist
Energy Systems Division
Argonne National Lab
9700 S. Cass Avenue
Lemont, IL 60439
+1-630-252-2000
Hui.xu@anl.gov

Dr. Joseph Ortiz, Professor
Department of Geology
Kent State University
325 South Lincoln Street, 44242
330-672-2225
jortiz@kent.edu