KEVIN CRESSWELL
302-293-0523 | Kcresswell2014@fau.edu

Education

Ph.D. 2022. Geosciences, Florida Atlantic University. (Gamma Theta Upsilon). Focus: GIS/urban geography.

Master's. 2016. Urban and Regional Planning, Florida Atlantic University. Specialization: environmental planning.

B.S.B.A. 2013. International Business, University of Denver. Minor: communication studies.

Teaching Experience

School of Urban and Regional Planning, Florida Atlantic University.
- **Adjunct Instructor**. 2023–2025. *Managing GIS Projects*.
  - Graduate level course that overviews organizational and management issues when implementing GIS and introduces advanced GIS analysis techniques, Web GIS, and GIS applications.
  - Utilizes ArcGIS Pro, ArcGIS Online, ArcGIS Field Maps, ArcGIS Web Apps, ArcGIS Story Map
- **Guest Lecturer**. Fall 2019. *Environmental Analysis in Planning*.
  - Surface Urban Heat Islands: Deriving Land Surface Temperature (LST) in ArcGIS Using Landsat 8 Satellite Data

Department of Geosciences, Florida Atlantic University.
- **Teaching Assistant**. 2017–2021. *Courses: Introduction to GIS, Geovisualization and GIS, Principles of GIS, Spatial Data Analysis, Web GIS, Photogrammetry and Aerial Image Interpretation, World Geography*.
  - Responsible for explaining theoretical concepts, course design, helping with assignments, and grading.
- **GIS Lab Assistant**. 2017–2021.
  - Assisted students with various GIS-related inquiries and troubleshooting issues.
  - Demanded familiarity with various software including ESRI products, PostgreSQL, ENVI, and ERDAS Imagine.
  - Required basic understanding of python, Javascript, and SQL.

Interdisciplinary Studies, Florida Atlantic University.
- **Teaching Assistant**. 2019. *Human Mission to Mars*.
  - First of its kind course about colonizing Mars co-taught by twelve professors.
  - Assisted with course and lecture construction, orchestrated in-class discussions and group work, back-up lecturer, organized final project public symposium.

Freelance.
- **GIS Tutor**. 2019-2022
  - Taught skills in ArcGIS (ArcGIS Pro, ArcGIS Online), ENVI, ERDAS, and QGIS.
  - Assisted collegiate students with GIS project conception, design, methodology and execution.

Publications and Presentations

Publications
- A shoreline screening framework for identifying nature-based stabilization measures reducing storm damage in the Florida Keys, *Journal of Marine Science and Engineering* (Co-Author; under review)
- The Southeast Florida urban agglomeration surface urban heat island and Hispanic ethnic exposure inequalities, *Southeastern Geographer*, 2024
- Gauging heat vulnerability in Southeast Florida: A multimodal approach integrating physical exposure, sensitivity, and adaptive capacity, *International Journal of Geo-Information*, 2023 (cover article: Volume 12, Issue 6)
- A Florida urban heat risk index: Assessing weighting and aggregation approaches, *Urban Climate*, 2023
- John D. MacArthur Beach State Park: an ecological pearl amidst the urban sea of Southeast Florida, *The Florida Geographer*, 2021
- Spatial decision support for nature-based shoreline stabilization options in subtropical estuarine environments, *Journal of Environmental Planning and Management*, 2018 (Co-Author)

Poster Presentations
- Identifying vulnerable populations to urban heat island effects: An analysis of the Southeast Florida urban agglomeration, *Florida Society of Geographers Annual Meeting*, Virtual, 2022

- Influence of land surface characteristics on the Southeast Florida urban heat island, *Florida Society of Geographers Annual Meeting*, Virtual, 2021
- Measuring municipal engagement with residents regarding sea level rise in Broward County, FL, *Sea Level Rise Summit - A Warming of the Arctic: Shared Futures from Alaska to Florida*, Fort Lauderdale, FL, 2016

Dissertation: Urban heat island driving forces and vulnerability assessment: A study of Southeast Florida, 2022
- Published on ProQuest Dissertation Database
- Committee: Diana Mitsova, PhD (chair); Maria Fadiman, PhD; Weibo Liu, PhD; Tobin Hindle, PhD
- Applied GIS to explore aspects of the Southeast Florida urban heat island:
  - Fundamental characteristics (e.g., intensity, spatial variation, seasonality)
  - Influential forces (e.g., surface attributes, land use, meteorology, geographical factors)
  - Population vulnerability (exposure, sensitivity, adaptive capacity)

Research Interests

environmental hazards | sustainable growth | urban health | environmental justice | urban heat islands

Research Experience

School of Urban and Regional Planning, Florida Atlantic University.
- **Research Assistant**. 2024.
  - Worked on a project investigating nature-based shoreline suitability in the Florida Keys funded by TNC.
  - Conducted data refinement, metadata creation, and manuscript preparation.

- **Graduate Research Assistant**. 2015–2016, 2018.
  - Worked on projects funded by TNC and NSF emphasizing GIS: procuring, preprocessing, analyzing, and visualizing spatial data.
  - TNC project modeled coastal erosion and suitability of nature-based, hybrid, and human-made shoreline infrastructure solutions to reduce impacts from climate hazards (e.g., storm surge).
  - NSF project examined infrastructure resilience during extreme weather events (floods).

Freelance Research.
- **ClearPath Action Fund; First Street Technology, Inc.**. 2016–2017.
  - Created a database of local and regional government projects/expenditures addressing sea level rise.
  - Mapped/analyzed project location and governmental monetary commitment.

Center for Urban and Environmental Solutions (CUES), Florida Atlantic University.
- **Graduate Research Assistant.** 2016.
  - Liaison to Broward County Housing Finance Division (Fort Lauderdale, FL).
  - Gauged Community Redevelopment Agency (CRA) effectiveness and compliance with F.S. 163 Chapter.
  - Evaluated other redevelopment efforts – e.g., Broward Redevelopment Program (BRP) and Redevelopment Capital Program (RCP).
  - Designed a CRA reporting template and constructed electronic database overviewing finances/projects.
  - Graded redevelopment initiative strengths/ weaknesses within a comprehensive report.

Skills

ArcGIS Pro | ArcGIS Online | SPSS | Python | MS Office | QGIS | ENVI | ERDAS Imagine | GeoDa | PostgreSQL | Google Earth

spatial data analysis | statistical analysis | spatial data creation | geodatabase curation/management

Internships

Land Conservancy for Southern Chester County. Kennett Square, PA.
- **Summer Stewardship**. 2015.
  - Learned/educated about local land conservation practices and flora/fauna.

Broward County Environmental Sustainability and Community Resilience Division. Fort Lauderdale, FL.
- **Conservation Pays Intern**. 2014.
  - Educated the public about countywide water conservation efforts.

Community Service

Natural Lands. Chester County, PA.

- **Force of Nature Volunteer**. 2025–present.
  - Learned about local ecosystems, conservation, and land management. Field work at nature preserves.

Florida Fish and Wildlife. South Florida.
- **Volunteer**. 2018–2020.
  - Assisted with GIS projects; performed field work (e.g., invasive species removal, habitat construction).

Gumbo Limbo Nature Center. Boca, Raton, FL.
- **Volunteer**. 2020.
  - Educated visitors about coastal ecosystems and conservation efforts in South Florida.

Florida Atlantic University. Boca Raton, FL.
- **Student Volunteer**. 2014–2019.
  - FAU Scholars Day, Graduate and Professional School Fair Representative, Science Olympiad Southeast Florida Regional Competition Judge, Graduate Student Representative, Sea Level Rise Summit, C'est La Via: Rethinking the Alleyways, Student Accessibility Services