

# Boyd Shearer

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## Lecturer

Department of Geography, University of Kentucky  
817 Patterson Office Tower  
Lexington, Kentucky 40506

Cartographer and mapping technology instructor. 15+ years of creative teaching and course development and 25+ years of map publishing, web design, and GIS consulting. Creates challenging and rewarding experiences learning open-source mapping, production cartography, and field mapping techniques. Current research uses lidar, digital elevation models, and terrain analysis.

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## Education

### University of Kentucky

M.A., Geography. 1999  
Thesis: *The Daily Aesthetic* [<http://www.uky.edu/Projects/TDA>]: A Multimedia Exploration of Leisure and Recreation in Lexington's Segregated Park System

### Indiana University

B.A., Major in Geography, Minor in Studio Fine Arts and Mathematics. 1994  
Thesis: *Abandonment and Generation: Technology & Culture in Indiana Public Parks*

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## Teaching Experience

### Senior Lecturer, Geography

2024–present | Department of Geography, University of Kentucky

Instructor for in-class undergraduate classes and online graduate Digital Mapping program. Responsibilities include teaching and developing a curriculum using open-source and ArcGIS mapping software and libraries. Focus on lidar and web mapping applications.

Courses taught

- MAP 673 Design for Interactive Web Mapping
- MAP 672 Programming for Web Mapping
- GEO 109 Digital Mapping

## **Lecturer, Geography**

2018–2024 | Department of Geography, University of Kentucky

Courses taught

- MAP 675 Collaborative Geovisualization
- MAP 673 Design for Interactive Web Mapping
- MAP 672 Programming for Web Mapping
- MAP 671 Introduction to New Mapping
- GEO 509 Workshop in Geospatial Technologies
- GEO 409 Advanced GIS
- GEO 305 Elements of Cartography
- GEO 109 Digital Mapping

Example MAP 671 module from 2018

- Lesson: [Spatial Joins, Hexbins, and Heat Mapping](#)
- Lab: [Hex binning North American breweries](#)

## **Adjunct Instructor, Geography**

2008–2018 | Department of Geography, University of Kentucky

Instructor for in-class undergraduate classes. Mapping courses focus on ArcGIS and Python and open-source GIS platforms. Created content for all courses.

Courses taught

- GEO 409 Advanced GIS
- GEO 399 Internships in Geography
- GEO 309 Introduction to GIS
- GEO 160 Lands and Peoples of the Non-Western World
- GEO 130 Introduction to Earth's Physical Environment

Example GEO 409 class project

- [Town Branch Trail](#)

## **Adjunct Instructor, Natural Resources and Environmental Science**

2013–2017 | College of Agriculture, University of Kentucky

Instructor for field-based GIS applications. Course uses mobile GPS apps, ArcGIS, and Lidar and NAIP datasets to measure tree canopy and 3D attributes in our areas of interest. Created content for all courses.

- NRES 355 Introductory Geospatial Applications For Land Analysis
- FOR 330: GIS and Spatial Analysis

Example NRES 355 class project

- [Lexington Neighborhoods Tree Canopy Height Study](#)

## **Adjunct Instructor, Department of History, Languages, and Social Sciences**

2006–2013 | Bluegrass Community and Technical College

In-class and online instructor for introductory geography classes.

Courses taught

- GEO 172 Introduction to Human Geography
- GEO 160 Lands and Peoples of the Non-Western World
- GEO 130 Introduction to Earth's Physical Environment

## **Workshops**

- 2019-2020 [maptimeLEX series](#)

Co-organizer (with Rich Donohue) of monthly workshops on open-source mapping tools and techniques.

- "Maximizing Spatial Oomph: unleashing the raw power of monochromatic maps" (September 12, 2019)
- "Regex to the rescue: repairing improperly encoded FIPS codes" (October 10, 2019)
- "Wildcat eyes: harnessing remote sensing data in Kentucky" (November 14, 2019)
- "Mapbox Studio does that? Yep!" (December 12, 2019)
- "Where is your nearest love?" (February 13, 2020)

- 2017 "Fundamentals of QGIS" and "Raster processing and tileset creation with QGIS" Kentucky Association of Mapping Professionals Annual meeting, September 5.
- 2017 "Fundamentals of QGIS" and "Raster processing and tileset creation with QGIS" Kentucky Association of Mapping Professionals Annual meeting, September 5.

- 2017 “Introduction to QGIS Short Course”  
University of Kentucky Department of Geography and Kentucky Association of Mapping Professionals, June 27.
- 2016 “Map Making with QGIS” and “Learning the Basics of CARTO”  
Kentucky Association of Mapping Professionals Annual Meeting, October 18.
- 2016 and 2015 “UKy Summer Map Camp”  
University of Kentucky Department of Geography, Summer.

## Teaching Awards and Recognition

- 2024 Finalist, "Provost's Outstanding Teaching Award for the 2023-2024." University of Kentucky.
- 2018 “NRE 355: A Thank you to Boyd Shearer.” Natural Resources and Environmental Science Fall Newsletter.
- 2014 “Outstanding Geography Teacher Award.” University of Kentucky Geographical Society.

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## Presentations

- 2024 “[3D & vector tiles: Open-source and self-hosted web map solutions](#)” Kentucky Association of Mapping Professionals annual meeting, October 9.
- 2024 “[Open-source 3D maps in the browser.](#)” University of Kentucky Earth and Environmental Sciences Department Rast-Holbrook Seminar Series, September 19.
- 2023 “[Open-source 3D maps in the browser.](#)” Kentucky Association of Mapping Professionals annual meeting, October 11.
- 2023 “[Showcasing a GEO509 student project.](#)” Cartography in the Bluegrass, September 28.
- 2022 “How we use QGIS at UKy Geography.” Kentucky Association of Mapping Professionals GIS Day event, November 16.
- 2022 “[The joy of mapping with Boyd.](#)” University of Kentucky Department of Geography Colloquium Series, October 28.
- 2022 “[Shaded reliefs from lidar derivatives.](#)” Kentucky Association of Mapping Professionals annual meeting, September 28.

- 2019 "Open source command line GIS." North American Cartographic Information Society annual meeting, October 18.
  - 2019 "Lidar: Processing & visualization with Python and ArcGIS Pro." Kentucky Association of Mapping Professionals annual meeting, October 11.
  - 2019 "Weather mapping in HD: a season of Kentucky sunsets." University of Kentucky Department of Geography Colloquium Series, February 15.
  - 2017 "Teaching experiences at the University of Kentucky." Department of Geography Colloquium Series, December 8.
  - 2010 "Great Smoky Mountains: A 2nd Edition." Kentucky Association of Mapping Professionals Quarterly Meeting, August 5, 2010.
  - 2009 "The Sheltowee Trace Trail Map." Appalachian Studies Association Annual Conference, March 27-29.
  - 2008 "The Great Smoky Mountains Trail Atlas." Appalachian Studies Association annual conference, March 28-30.
  - 2007 "The Great Smoky Mountains Trail Atlas," map presentation. North American Cartographic Information Society annual meeting, October 12-15.
  - 2006 "The Big South Fork Trail Guide." map presentation, GIS Day University of Kentucky, November 15.
  - 2005 "Mapping Recreation with GPS, GIS, and Cartographic Art," University of Kentucky Department of Geography Colloquium Series.
  - 2004 "The Sheltowee Trace." Kentucky GIS Annual Conference, September 24-28.
  - 2002 "Animated Maps," GIS Day University of Kentucky, November 14.
  - 2001 "outrageGIS mapping." Southeastern Division of the Association of American Geographers annual conference, November 17-20.
  - 1998 "A Douglass Park Documentary Project." University of Kentucky Department of Geography Colloquium Series.
  - 1996 "The Daily Aesthetic." Southeastern Division of the Association of American Geographers annual conference.
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## Technology Experience

Spatial apps	Programming	Design
QGIS, ArcGIS, PostGIS	JavaScript, Python, Bash	HTML/CSS, Adobe Creative Cloud

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## Professional Experience

### Cartographer and GIS Consultant

1998–present | [outrageGIS mapping](#)

Creating printed and online maps that help hikers, mountain bikers, and equestrians better navigate public trails and wilderness areas: [outrageGIS mapping](#)

### Cartographer

1995-1999 | Appalachian Center at the University of Kentucky

Created thematic maps analyzing demographic trends in the Appalachian region. Focused on patterns of social and infrastructural distress at the census tract level of geography. Example publication from 1997, [Appalachian Region Poverty Rate by Census Tract](#).

## Map production

A selected list of published maps.

- 2023 *Campus Change, 2010-2019*,  
(**Won 1st Place for Spatial Analysis** at Kentucky Association of Mapping Professionals annual meeting, October 10-12, 2023)
- 2021 *Red River Gorge Trail Map*, 6th Edition
- 2020 *Sheltowee Trace North & South Hiking Maps*, 2nd Edition
- 2019 *West Sixth Farm Trail Map*  
Commissioned by West Sixth Brewing, Lexington, KY
- 2017 *Cumberland Gap Trail Hiking Map*, 2nd Edition  
(**Won 1st Place** at Kentucky GIS Conference, September 5-7, 2017)
- 2017 *Boulder Canyon Rock Climbs* (3D inset maps)  
Commissioned by Wolverine Publishing, New Castle, CO
- 2016 *Norris Watershed Trail Map*  
Commissioned by the City of Norris, Norris, TN
- 2015 *Sheltowee Trace South Trail Hiking Map*

- 2015 *Western Colorado Physiographic Base Map*  
Commissioned by Wolverine Publishing, New Castle, CO
- 2014 *Sheltowee Trace North Trail Hiking Map*
- 2014 *Cumberland Falls State Resort Park Trail Map*  
Commissioned by the Kentucky Division of Parks, Frankfort, KY
- 2013 *Red River Gorge Trail Map*, 5th Edition
- 2012 *Carter Caves State Resort Park Trail Map*  
Commissioned by the Kentucky Division of Parks, Frankfort, KY
- 2012 *Bike Lexington Map*  
Commissioned by Lexington Division of Planning., Lexington, KY,  
(**Won 2nd Place** at Kentucky GIS Conference, September 27-28, 2012)
- 2008 *Great Smoky Mountains Trail Atlas*
- 2007 *The Big South Fork Trail Guide*
- 2005 "Channel Islands National Park,"  
Commissioned by the *National Parks Magazine*, Vol. 79, No. 2, pg. 51
- 2005 *Jefferson Memorial Forest Trail Guide*
- 2004 *Red River Gorge Sports Map*
- 2002 *Cave Run Lake Trail Guide*
- 2001 *Red River Gorge Backpacking Guide*
- 2000 *Western Korean Front: 1952-1953*
- 1999 *Creating a Community Shared Appalachian Atlas*, U.K. Appalachian Center.
- 1997 *Distressed Appalachian Census Tracts: a Comparison to the Appalachian Regional Commission's 1997 Distressed Area Designation*, U.K. Appalachian Center.

## Media production

- 2007 "At Leisure's Edge" audio documentary and driving tour  
Self-produced audio driving tour exploring once-segregated parks, 72 minutes. Writer, producer, and editor.  
[Audio and maps](#)
- 2006 "First Frontier Audio Driving Tour"  
Commissioned by the *Southern and Eastern Kentucky Tourism Development Association*, 144 minutes. Writer, producer, and editor.  
[Audio Disk 1](#) | [Audio Disk 2](#) | [Example map](#)
- 2001 "At Leisure's Edge: A Journey through Kentucky's Historic Black Parks"  
*Kentucky Educational Television*, 57 minutes. Writer, producer, and editor.  
[Video](#)

- 1998 "The Beauty Salon," short film by Erin McGinnis and Ari Palos, 5:30 minutes. Sound design and editor.

[Video](#)

- 1997 "Mother's Day in Gratz Park," WRFL, 8 minutes.

[Audio](#)

- 1997 "The Red at Red River Gorge," WRFL 17 minutes.

[Audio](#)

- 1997 "Defeat in the Streets: UK's 1997 NCAA Loss," WRFL, 3 minutes.

[Audio](#)

- 1997 "The Children of Constitution Square," WRFL, 6 minutes.

[Audio](#)

## Grants Received

- 1999 Kentucky Educational Television, \$19,000.
- 1998 The Kentucky Humanities Council, \$10,000.
- 1997 The Kentucky Oral History Commission, \$4,000.
- 1997 The Lexington Arts and Cultural Council, \$2,000.
- 1996 The Kentucky Humanities Council, \$1,000.
- 1996 The Kentucky Oral History Commission, \$1,000.

## Service and Affiliations

Town Branch Trail, Inc; Board Member

Kentucky Association of Mapping Professionals

North American Cartographic Association Society

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November, 2024