Boyd Shearer

Lecturer

Department of Geography, University of Kentucky
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Cartographer and mapping technology instructor. 10+ years of creative teaching and course development and 20+ 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.

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*

Teaching Experience

New Maps Plus

2015–present | Department of Geography, University of Kentucky

Instructor for online program awarding a Graduate Certificate and Master of Science degree in open source mapping. Responsibilities include teaching and developing a curriculum that integrates QGIS, PostGIS, OpenStreetMap data, Leaflet.js, and other mapping libraries with the common web stack to perform and visualize spatial analysis.

Courses taught

- MAP 671 Intro to Open Source Mapping and Data Management
- MAP 672 Programming for Web Mapping
- MAP 673 Design for Interactive Web Mapping

Example MAP 671 module from Spring 2018

- Lesson: Spatial Joins, Hexbins, and Heat Mapping
- Instructional video from lesson: Instructional video
- Lab: Hex binning North American breweries

Geography

2008–present | Department of Geography, University of Kentucky

Instructor for in-class undergraduate classes. Advanced courses have focused 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

Recent class project

- Spring 2017 GEO 409: 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

Recent class project

- Fall 2017: 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 130 Introduction to Earth's Physical Environment
- GEO 160 Lands and Peoples of the Non-Western World
- GEO 172 Introduction to Human Geography

Recent student project

- Fall 2012 GEO 172: Rephotographing Lexington's streetscapes

Recent teaching workshops

- 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. Learn what middle school kids can map.

Teaching Awards and Recognition

- 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.

Presentations

- 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.

Technology Experience

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

Professional Experience

Cartographer and GIS Consultant

1998–present | outrageGIS mapping

Creating navigation aids that help hikers, mountain bikers, and equestrians better use public trails and wilderness areas with accurate map information for efficient travel. 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.

- 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*

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