

# UWSP Geo News

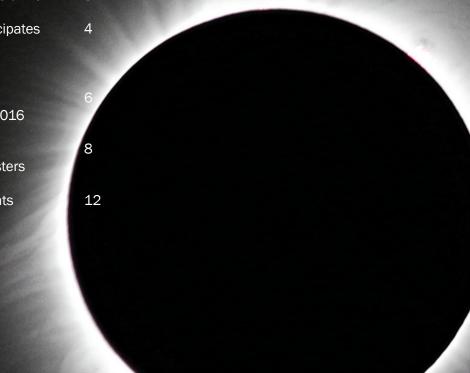
## University of Wisconsin Stevens Point

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A biannual publication of the UW-Stevens Point Department of Geography and Geology VOLUME 3 | ISSUE 1 | Dec 2017

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# The Great American Eclipse August 21, 2017

www.uwsp.edu/geo www.uwsp.edu/gis

## **Graduates - Class of Fall 2017**

in scientia opportunitas - In knowledge there is opportunity

## Bachelor of Science in Geography

Jake D. Bracey GIS and Cartography

Joseph M. LaViolette GIS and Cartography

## Bachelor of Science in Geoscience

Brayden T. Dokkestul Environmental Analysis

## GIS and Spatial Analysis Minor

**Trevor A. Adams** 

Yoon Bin Bae

Nathaniel T. Fore

Riley Q. Hall

Benjamin W. Jurenec

## **GIS** Certificate

Yoon Bin Bae GIS Professional Certificate

**Logan Jones** GIS Professional Certificate GIS Focal Certificate in Forestry

## Joseph M. LaViolette

GIS Professional Certificate GIS Focal Certificate in Cartography

The degrees recognized on this page are those offered by the UWSP Department of Geography and Geology. Academic credentials awarded by other departments are not acknowledged.



## UWSP Geo Participates in Solar Eclipse Research

Dr. Neil Heywood, Professor

Students, alumni, faculty, and staff from the UW-Stevens Point Geography and Geology Department made multiple trips to reconnoiter, and ultimately observe, the total solar eclipse of Monday, 21 August 2017, in western Nebraska and eastern Wyoming. The total duration of this rare event ranged from only 26 to 151 seconds, and it will not recur in North America until 08 April 2024.

**Brayden Dokkestul** (Geography), **John White** (Geoscience), **Ray Reser** (Museum; Geography Affiliate), and **Neil Heywood** (Geography) collaborated with 12 others from UW-Stevens Point Biology, Biochemistry, Computing, and Physics/Astronomy. The teams also coordinated closely with local officials and citizens, the National Park Service, the National Forest Service, and even a Girl Scout Troop from Madison, Wisconsin!

While the astronomy technicians concentrated upon collecting solar data, the Geo field scientists focused upon two complementing task areas: early precision surveying of observation sites, and acquisition of bioclimatic data during the event. The advance survey teams successfully placed the astronomers at exactly their necessary observation locations and environments, and the event observers recorded some hitherto never documented biotic and atmospheric eclipse phenomena.

Team members worked within arduous conditions; 100° heat, high wind, absolutely no shade, aridity in rural grasslands, depleted provisions, and extreme vehicular congestion. They still accomplished all goals.

The Great American Eclipse Team. Standing from left to right: Joselyn Watson (Physics alum), Sam Chapman (Data Analytics student), Liza Wernicki (Geoscience and Physics alum), Sarah Parker (Physics student), Jesse Jahn (Physics and Education alum), Chedomir Jahnke (Physics student), Brayden Dokkestul (Geography student), Alyssa Likeness (Physics student), Nance Stokosa (Physics administrative), and Zach Gumm (Biochemistry student). Kneeling from left to right: Neil Heywood (Geography professor), Jesse Watson (Physics alum), and Art Stevenson (Physics professor). Absent on assignment: Pat Zellmer (Biology professor), John White (Geoscience alum), and Ray Reser (Director Museum of Natural History and alum).



The team also accomplished positive public visibility objectives. UW-Stevens Point and its investigators are now known resources to local citizens and officials, state and federal agencies, and casual co-visitors. The Girl Scouts also became aware, and in turn became themselves very favorably visible. UW-Stevens Point is on the radar screens of many.

So what did we return with? Tons of interdisciplinary data, indelible experiences and inspirations, professional camaraderie across multiple generations and constituencies, and visible accomplishments. That was a respectable return on investment for the College of Letters and Science which enabled the excursion.

About half of the research team presented initial findings at the 01 November 2017 University Evening, during a first-time-ever joint inclusion of cross-disciplinary UW-Stevens Point students, alumni, staff, and faculty. That event included legitimate and on-going science results, but also commentary about societal relevance of such work, to the general public. That was just the start.

The University Evening presentation, *Darkness at Noon* is viewable at <a href="https://www.youtube.com/watch?v=qb1kWEXJjel">https://www.youtube.com/watch?v=qb1kWEXJjel</a>.







Photos clockwise from upper-left:

A Girl Scout cookie provides a makeshift pinhole camera for viewing the eclipse.

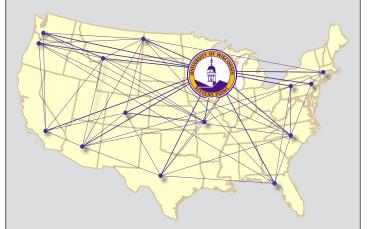
Mounted to a telescope is a smartphone camera, capturing video of the moon eclipsing the sun. The video captures Bailey's Beads and reveals the deep valleys of the moon.

Alumnus, John White, documents the moment with his family.



# Topologies

Maintaining Relationships with Alumni



Topology, defined in the geographic sense, maintains spatial relationships among geographic features.

This newsletter column entitled, *Topologies*, is meant to maintain relationships among our treasured alumni and their alma mater—the University of Wisconsin-Stevens Point.

No matter where GEO takes you, stay connected!

#### Validate your topology today.

Alumni, let us know how to contact you and what you've been up to. Please share your stories of personal and professional success with the UW-Stevens Point community of students, alumni, colleagues, and friends.

- E-mail us at GIS@uwsp.edu
- Subject Heading: Alumni Topologies

### Robert Sorgel, Class of 2017

Bachelor of Science in Geoscience

As faculty, we often hear from employers that undergraduate



research is what sets UW-Stevens Point apart from other undergraduate institutions of higher education. Undergraduate research provides UW-Stevens Point students and alumni an advantage over their competition in the workplace. That premise holds truth for Robert Sorgel, a 2017 graduate with a B.S. degree in Geoscience.

Robert, with fellow student, John White, researched gravity signals associated with the Mid-Continent Rift for their Geoscience capstone thesis. The rift, which extends from Lake Superior to Oklahoma, formed 1.1 billion years ago when North America almost split into two tectonic plates. The rift infilled with dense basaltic magma that generated a high-density gravity signal. Using a gravimeter on loan from UW-Milwaukee, and working with scientists from the United States Geologic Survey (USGS), Robert and John successfully identified the gravity signal. Their undergraduate research contributed significant results to the field of study. According to Robert, "Dr. Kevin Hefferan pushed us to get the gravimeter, meet with the USGS scientists, and take the project a lot farther than we thought we could have."

Shortly after graduation, Robert put his academic record, research credentials and interview skills to the test applying for a position with Hart & Hickman, P.C., an environmental consulting firm based in Charlotte, North Carolina. Robert competed against roughly 150 candidates, many of them having Masters degrees, plus two to three years of consulting experience. The undergraduate



research experience paid him dividends, landing him the position.

Robert has been working as a staff geologist for Hart & Hickman for just short while. *"Working in a small firm, I am blessed with the opportunity to learn from and experience many aspects of this industry."* His list of responsibilities include:

-Soil sampling

- -Groundwater/surface water sampling
- -Soil gas sampling
- -Indoor air sampling
- -Monitoring well installations
- -Soil vapor point installations
- -Injection well installations
- -Performing bioremediation injections
- -Asbestos/lead based paint inspections, and
- -Phase I site inspections

This list scratches the surface of what Robert has already experienced since joining the industry. Robert also earned his South Carolina asbestos inspector license. The application for his North Carolina license is in progress. Robert has successfully completed two bioremediation injections, including a "Pepsi" injection at a Department of Transportation site and an emulsified vegetable oil injection at an industrial facility. Robert has also helped to draft reports and applications for clients.

As part of the North Carolina Dry Cleaning Solvents Cleanup Act program, Robert is administering and overseeing the assessment and cleanup of dry-cleaning solvents on a new site. Robert has only been managing it for a few weeks now, but is already in the process of obtaining property access agreements for monitoring well installations. Afterward, Robert will coordinate sampling activities, review the analytical results, prepare figures,



Geoscience: out-of-doors and in the field. Robert collects water samples to later test for pollutants.

make determinations for further plume delineation and remediation, and draft monitoring reports.

Robert reflects on his four years at UW-Stevens Point and what his Geoscience degree means to him. "The courses challenged me and Dr. Hefferan instilled motivation for success. He made certain we understood the material. I remember the late nights studying in the SIAL computer lab and in the rock room, sometimes until 3 am. These habits have followed me into my current career. The work is stressful and demanding, but it is also rewarding to know that my efforts benefit my clients and the earth."

"It saddens me that the University is at risk of losing such an excellent department. They've provided me with the skills to be successful at my career and provide for my family. I hope that the decision changes."

Robert Sorgel embodies the strength of the UW-Stevens Point Department of Geography and Geology, a program noted for developing outstanding students that succeed in the workforce and in life.



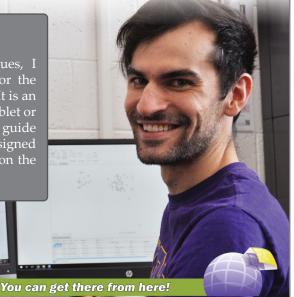


## GIS Certificate, 2017

GIS Marketing Intern Wausau Chamber of Commerce

#### Aaron Willems

"With GIS and story mapping techniques, I created the Wausau Digital Concierge for the Wausau Region Chamber of Commerce. It is an online map application for the desktop, tablet or smartphone. The tool offers a personal guide to the Wausau River District and is designed to help tourists and visitors plan a night on the town or a weekend to remember."





**Stevens Point** 

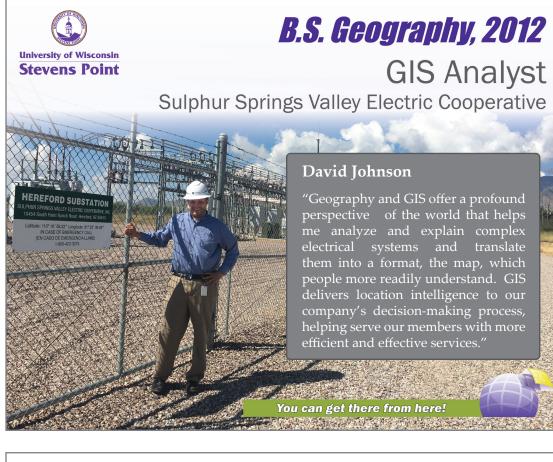
## **B.S. Natural Science, 2009** Geologist

PDC Energy

#### **Brad Evraets**

"I earned my Natural Science degree prior to UWSP offering Geoscience. Afterward, I earned my M.S. in Paleobotany and Paleoclimate. I've worked internships for Conoco Phillips and then full-time as a Senior Geologist. I'm now working in the Delaware Basin development team for PDC Energy in Denver, CO, studying structurally and stratigraphically complex unconventional oil and gas plays."







Made

in the

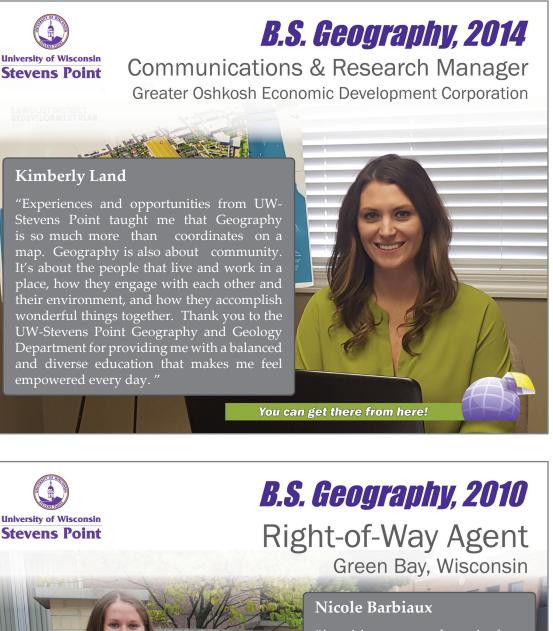
USA

## **B.S. Geography, 2014** Real Estate Specialist City of Green Bay, Wisconsin

#### Kenneth Rovinski

"I am a Real Estate Specialist with the City of Green Bay. I administer housing development programs that include the acquisition and redevelopment of blighted properties, the distribution of grants for infill development, and the facilitation of other commercial and residential transactions. Human Geography gave me the tools I need to be successful in my career and developed important life skills molding me into the person I am today."





"Acquiring a geography major from UWSP has brought me experiences and education that has proven to be irreplaceable. Since graduating, I have held jobs in both the private and public sectors in multiple states. My education has allowed me to work in the forestry, government, transportation, and utility industries. I would not be where I am today without geography from UW-Stevens Point."

You can get there from here!

REEN

BAYC

Titletown,

University of Wisconsin Stevens Point

## Soil Scientist Shasta Trinity National Forest

B.S. Geoscience, 2012

### **Anna Courtney**

"As a soil scientist for the Shasta Trinity National Forest stationed in Northern California, I conduct soil monitoring for timber sales, supervise the implementation of watershed projects, and serve as a fire resource advisor and a burn area emergency response specialist."





## University of Wisconsin Stevens Point

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- < Neil Heywood, Professor
- < Samantha Kaplan, Associate Professor
- < Christine Koeller, Faculty Associate
- < Eric Larsen, Professor
- < Karen Lemke, Professor
- < Douglas Miskowiak, Senior GIS Education Specialist
- < Ismaila Odogba, Associate Professor
- < Ray Reser, Director of Museum of Natural History
- < Keith Rice, Professor and Director of GIS Center
- < Michael Ritter, Professor
- < Diane Stelzer, GIS Center Associate
- < Lisa Theo, Senior Lecturer

#### **Calendar of Events**

ESRI Geodesign Summit January 23 - 25, 2018. Redlands, CA www.esri.com/events/geodesign-summit

UW-Stevens Point STEM Career Day for Girls February 23, 2018. Stevens Point, WI www.uwsp.edu/conted/ConfWrkShp/pages/stem/girls.aspx

National States Geographic Information Council Midyear Meeting February 26 - March 1, 2018. Salt Lake City, UT www.nsgic.org

Wisconsin Land Information Association Annual Conference March 7 - 9, 2018. Elkhart Lake, WI www.wlia.org

American Association of Geographers Annual Meeting April 10 - 14, 2018. New Orleans, LA http://annualmeeting.aag.org/

The Geological Society of America North-Central Meeting April 16 - 17, 2018. Ames, IA www.geosociety.org/GSA/Events/Section\_Meetings/GSA/ Sections/nc/2018mtg/home.aspx

Upper Midwest Geospatial Conference May 23 - 24, 2018. La Crosse, WI https://umgeocon.org/

