# 2014 USGIF SCHOLARSHIP WINNERS

In 2014, USGIF awarded scholarships to 22 students to include five Ph.D. candidates, seven graduate students, seven undergraduates, and three graduating high school seniors. The USGIF Scholarship Program advances the GEOINT tradecraft by granting scholarships to promising students pursuing degrees in the geospatial sciences or a related field. In total, USGIF has awarded \$792,000 in scholarship funds since the program began in 2004.

Each undergraduate, graduate, and doctorate awardee receives \$5,000, while high school seniors receive \$2,000 toward their education. All scholarship recipients were selected by USGIF's Scholarship Subcommittee, which evaluated applicants based on academic and professional excellence.

#### DOCTORATE



TANYA CATIGNANI
George Mason University
Earth Systems & Geoinformation Science
Tanya is developing a geospatial model of ancient Mayan wetland agricultural fields

in northern Belize, analyzing the spectral reflectance of these wetland soils to identify signatures related to ancient agriculture. She plans to continue researching geospatial modeling and how this technology can be applied to understand relationships between humans and their environment.



KATIE A. CORCORAN University of Tennessee, Knoxville Biological Anthropology

Katie's research focuses on the application of remote sensing for human grave detection,

facilitating the recovery of missing U.S. military personnel in former conflict zones. Katie earned a bachelor's degree in anthropology from the University of Central Florida and has a professional background in archaeology.



**JASON Z. EDWARDS**University of Wyoming
Ecology

Jason's research interests are focused on transportation networks and human/natural

system dynamics. His dissertation addresses how timing, amount, and intensity of precipitation, together with land-use changes resulting from government policy, affect soil transport. This research applies remote sensing data in tandem with mechanistic model programming in a GIS framework.



**DAVID SHEAN**University of Washington
Earth & Space Sciences

David has spent several years working for Malin Space Science Systems as a member of

the Mars Reconnaissance Orbiter science operations team.

David's current research relies on satellite, airborne, and

UAV remote sensing observations combined with modern
photogrammetric methods to study ice dynamics and
variability in Antarctica, Greenland, and the Pacific Northwest.



**AMANDA ZIEMANN**Rochester Institute of Technology
Imaging Science

For her master's thesis, Amanda developed a tool for automated large-area search in multi-

spectral imagery with applications to change detection analysis. Her doctoral research with RIT's Digital Imaging and Remote Sensing Laboratory focuses on developing graph theory and manifold learning-based target detection algorithms for hyperspectral imagery.

#### GRADUATE



JULIE BAER
Harvard Graduate School of Education
International Education Policy

Julie's primary research interest focuses on mapping international educational data to assist

policy makers. Through aggregating and displaying this material, Julie hopes to provide insight on how countries can better apply resources to increase educational attainment. Julie received her undergraduate degree in financial economics from Centre College.



**SEAN DOLAN**George Mason University
Geoinformatics & Geospatial Intelligence

As a geospatial analyst with Booz Allen Hamilton for the past seven years, Sean is versed in

cartographic design, GEOINT analysis, and geospatial production. He is passionate about the integration of GIS technology with law enforcement, particularly to analyze and predict criminal behavior. Sean also holds a bachelor of arts in Spanish from Wake Forest University.



NOUMAN HUSSAIN
Penn State University
Geographic Information Systems

Nouman is currently a GIS analyst for the Department of Defense. He began his career

in GIS after achieving a graduate GIS certificate from Penn State in 2012. His interests are in spatial analysis, cartography, and most recently, 3D visualization of spatial data and geographic points.

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SETH W. LEMASTER

Penn State University
Homeland Security & Geospatial Intelligence

As a member of the Arkansas National Guard, Seth deployed to Afghanistan as a geospatial

intelligence analyst providing GEOINT support to special operations. While pursuing his master's degree, Seth also works as the GIS lead for the Arkansas Geographic Information Office.



MEGAN M. G. MILLER Purdue University

Purdue University
Geomatics Engineering

Megan's research efforts are focused on the advancement of UAV image processing through

the development of a completely integrated and rigorous software package that delivers orthoimagery and digital surface models. She predicts this on-the-fly terrain analysis will greatly enhance the usefulness of UAVs for tactical and disaster relief users.



W. GABE POWELL University of Mississippi Geology

With more than 10 years of military service, Gabe has deployed to Iraq and Afghanistan in

support of humanitarian relief efforts. While in Afghanistan, Gabe spent a year applying geospatial technologies in support of the war on terror. Gabe's next assignment takes him to the United States Military Academy where he will teach geospatial information science.



ALEXANDER TEDESCHI

New University of Lisbon Geospatial Technologies

Alexander developed an interest in geospatial science by engaging with topics in political

geography while pursuing a master's degree in regional studies. Alexander combined his cartographic skills and interest in history to build an interactive map of imperial Russian transportation routes, after which he assisted a Russian NGO to geocode addresses of political repression in Soviet Moscow.

#### UNDERGRADUATE



XHULIO BINJAKU
University of Florida
Geography & Architecture

After emigrating from Albania to the United States with his family, Xhulio learned of the

immense vastness of land, and the similar patterns within that bring geographies together. Upon completing his undergraduate degree, Xhulio hopes to receive a master's degree in urban planning, and combine his knowledge of geography and architecture.



TIFFANY HUFF
Texas Christian University
Geography

Tiffany is an intern and Stokes Scholarship Program award recipient with the National

Geospatial-Intelligence Agency (NGA). Upon graduation, Tiffany will convert to a full-time position with NGA, where she plans to apply her geographic knowledge and analytical GIS skills toward the agency's mission. She is particularly interested in exploring human geography, computer programming, and web-based map services.



ANNA KALINOWSKI University of Missouri

University of Missouri Electrical Engineering

During the school year, Anna conducts academic research involving image processing

and computer vision with university faculty members. On academic breaks, she interns at NGA. Anna looks forward to a career in which she can contribute her skills to the field of GEOINT.



**ERIK MUELLER** 

University of Missouri Geography & Behavioral Science

Growing up in and around the military drove Erik to pursue a career in the Intelligence Community

and Department of Defense. He was fortunate to intern with the federal government this past summer, and plans to further his education and build a long-term career in the Intelligence Community.

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TRAVIS STEVENS
Virginia Tech
Geography

Travis is a student veteran and is close to completing an associate's degree in computer

science from Cochise College in addition to his courses at Virginia Tech. He hopes to receive full-time civilian employment in the defense industry upon graduation. Travis is a veteran of the Iraq and Afghan wars, and currently has a job with the U.S. National Guard.



**EVERLEIGH STOKES**Penn State University
Geography

Everleigh participated in two GIS classes her junior and senior years of high school, inspiring

her to pursue a degree in the field. After graduation, Everleigh hopes to combine GIS and global health by using mapping technology to assist with humanitarian assistance, disaster response, and disease tracking.



MATTHEW VAUGHAN
Virginia Tech
Geography

Matthew's primary interest is in the use of GIS and remote sensing. He has long enjoyed

studying both human and physical geography and the interactions between the two. Recently, Matthew has directly applied this knowledge to real-world problems, and plans to do so during his graduate research.

#### **GRADUATING HIGH SCHOOL SENIORS**



#### **SCOTT CONSTANTINE**

Pope John Paul II High School, Boca Raton, Fla. Now attending University of Illinois at Urbana-Champaign

Scott is pursuing a degree in geography with a concentration in geographic information

science. Within the geospatial intelligence realm, he is drawn to remote sensing, mapping, and photogrammetry using airborne platforms. He is also interested in the applications of GIS for geology.



JED DALE
Babylon High School, Babylon, N.Y.
Now attending University of Pennsylvania

Jed interned this summer with the Brookhaven National Laboratory's Nuclear Nonproliferation

and Nation Security Department. He is interested in the application of geospatial technology to study various phenomena, such as the impact of climate change on extreme weather events.



SHAREEF HUSSAM Westfield High School, Chantilly, Va. Now attending Cornell University

Shareef began developing ideas for new research projects that combine his interest in

urban and regional planning with geographic information systems. Shareef hopes to use the tremendous power of GIS to increase his understanding of cities and their complex development.