

W. KYLE BLOUNT

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EDUCATION

Colorado School of Mines, Golden, Colorado

Ph.D., Hydrologic Science and Engineering

Expected May 2020

M.S., Hydrologic Science and Engineering

Expected May 2018

Advisor: Dr. Terri S. Hogue

Texas A&M University, College Station, Texas

B.S., Environmental Geosciences (Water Theme)

Dec 2013

Minors: Geoinformatics and Psychology

Honors Thesis: "Future Flooding in Houston: Modeling the Impacts of Climate and Land Cover Change on Hydrology in the Buffalo-San Jacinto Watershed"

Advisor: Dr. Stephen Quiring

PUBLICATIONS

Blount, W.K. (2013). **Future Flooding in Houston: Modeling the Impacts of Climate and Land Cover Change on Hydrology in the Buffalo-San Jacinto Watershed**. Texas A&M University Honors and Undergraduate Research. Available electronically from <http://hdl.handle.net/1969.1/154891>.

RESEARCH EXPERIENCE

Research Interests: Disturbance hydrology, including wildfire, urban, and alpine hydrology; remote sensing; hydrologic modeling; evapotranspiration; land-atmosphere interactions; stakeholder engagement

Colorado School of Mines, Department of Civil and Environmental Engineering

Graduate Research Assistant

Aug 2016 – Present

Work on a NASA-funded project focused on modeling evapotranspiration from remote sensing observations; Model changes in ET, water budgets, and vegetation indices to explore risk, severity, and recovery of wildfires in the Western United States.

Texas A&M University, College Station, TX

Undergraduate Research Assistant

Aug 2010 – Feb 2011

Developed standardized criteria for the metadata for a new North American soil moisture database; Collected metadata for stations to be included in the database.

PRESENTATIONS

ORAL

Blount, W.K., T.S. Hogue, K.J. Franz, and K.R. Knipper: **Use of remote sensing products to evaluate hydrologic response in fragmenting landscapes in East Africa**. 2017 University of Oklahoma International WaTER Conference, Norman, OK, September 18-20, 2017.

Blount, W.K., T.S. Hogue, K.J. Franz, and K.R. Knipper: **Evapotranspiration and partitioning of the hydrologic cycle in fragmented landscapes in the Western United States**. 2017 University Council on Water Resources/National Institute of Water Resources (UCOWR/NIWR) Annual Conference, Fort Collins, CO, June 13-15, 2017.

Hogue, T.S., S. Saxe, R. Logan, K. Knipper, and W.K. Blount: **Short and Long-Term Recovery in Burned Watersheds and the Impact on Streamflow Dynamics**. 2016 Geological Society of America (GSA) National Conference, Denver, CO, September 25-28, 2016.

Blount, W.K.: **Undergraduate Thesis: "Future Flooding in Houston"**. 2013 Undergraduate Research Scholar Presentations, Texas A&M University, College Station, TX, April 25, 2013.

POSTER

Blount, W.K., T.S. Hogue, K.J. Franz, and K.R. Knipper: **Advancing Remotely-sensed Evapotranspiration Estimates using the MODIS Soil Moisture-Evapotranspiration (MOD-SMET) Model**. 2018 American Meteorological Society (AMS) Annual Meeting, Austin, TX, January 7-11, 2018.

Blount, W.K., T.S. Hogue, K.J. Franz, and K.R. Knipper: **Application of MODIS Soil-Moisture-Evapotranspiration (MOD-SMET) Model to Evaluate Landscape and Hydrologic Recovery after the High Park Fire, Colorado, USA**. 2017 American Geophysical Union (AGU) Fall Meeting, New Orleans, LA, December 11-15, 2017.

Blount, W.K.: **Undergraduate Capstone: "An Expansion of Methodology for Modeling Urban Land Cover Change in the Variable Infiltration Capacity (VIC) Hydrological Model"**. 2013 Geosciences Undergraduate Research Day, Texas A&M University, College Station, TX, November 28, 2013.

TEACHING AND RELATED EXPERIENCE

Colorado School of Mines, Department of Civil and Environmental Engineering

Teaching Assistant

Aug 2017 – Dec 2017

Consulted with Dr. Terri Hogue on course design and content for an upper-level water resources engineering course; created all laboratory assignments; taught the laboratory portion of the class; held office hours; completed grading.

Full Passage, Inc., Denver, CO

Instructor and Tutor

Mar 2015 – Nov 2016

Taught ACT and SAT test prep courses; conducted private tutoring of test prep and high school math and science; created and edited student and teacher manuals for test prep use; planned lessons for subject students.

AWARDS

RESEARCH AWARDS

Outstanding Graduating Senior, Environmental Programs	2013
Outstanding Research Presentation, Undergraduate Capstone Project	2013
Undergraduate Research Scholar	2013

GRANTS AND FELLOWSHIPS

NAGT Review Camp Stipend	2017
HSE Program Fellowship, Colorado School of Mines	2016
President's Endowed Scholar, Texas A&M	2010 – 2013
Director's Excellence Award, Texas A&M	2010 – 2013
National Merit Scholar	2009

TEACHING AWARDS

NAGT Outstanding TA Award

2018

OTHER EXPERIENCE, LEADERSHIP, AND SERVICE

President's Council on Diversity, Inclusion, and Access (DIA), Colorado School of Mines

Student Advisory Board Member

Jan 2018 – Present

Met with other student leaders to frame recommendations to the university president, advise implementation of data collection, promote shared responsibility, and expand pathways to success with regard to DIA on Mines' campus.

oSTEM Peer Mentorship Program, Colorado School of Mines

Peer Mentor

Aug 2016 – Present

Hold open office hours and provide resources for LGBT+ and questioning students on the Mines campus.

Colorado Science Olympiad

Event Supervisor, Hovercraft

April 2017

Prepared the written test and apparatus testing for the Hovercraft event at the Colorado State Science Olympiad Tournament at Mines. Coordinated volunteers and the check-in, written testing, and hovercraft testing for both high school and junior high students. Completed grading and scoring for the event.

National Association of Geoscience Teachers

Activity Review Camp Member

July 2017

Reviewed approximately 20 activities within NAGT's Science Education Resource Center (SERC) database for scientific accuracy, pedagogical effectiveness, and adequate goals and assessments. Provided feedback to activity authors for improvement and collaborated with other reviewers to produce evaluations and constructive criticism.

Lone Star Groundwater Conservation District, Conroe, TX

GIS Technician

Feb 2014 – Oct 2014

Created and maintained internal standards and processes for entry and storage geospatial data; Designed and created an in-house geospatial database to store physical and chemical properties of wells and aquifers; Performed queries to assist with public data requests and created thematic maps using the new geospatial database; Coordinated with the USGS and Houston-Galveston Area Counsel (HGAM) for use of local hydraulic models and data storage; Participated in public outreach and education.

Environmental Programs Advisory Committee, Texas A&M University

Student Representative

Aug 2012 – Dec 2013

Elected representative of the interests of the 250 students in the Environmental Programs; counseled administrative decisions about the direction and future of the program along with fellow students and faculty.

MSC Fall Leadership Conference, Texas A&M University

Student Representative for Environmental Programs

Aug 2012

Ambassadors Trip, Adventures in Missions (AIM)

High School Trip Leader, Kenya

July 2011

Lead 10 high school students to Nairobi, Kenya to assist in community outreach and religious missions.

NOVAS Project, Adventures in Missions (AIM)

Team Member, Uganda and Kenya

Aug 2009 – May 2010

Conducted religious missions and humanitarian work including medical outreach and environmental education in Busia and Tororro, Uganda and Mbita, Kenya.

SKILLS AND CERTIFICATIONS

Computer Languages:	MATLAB, R, JavaScript
Computer Applications:	ArcGIS, ENVI, Microsoft Office (including access)
Other Skills:	Database Management Systems, SQL, Differential GPS, Hydrologic Modelling
Certifications and Trainings:	LGBT+ SafeZone Training; Sexual Assault Survivor Response Training

MEMBERSHIPS

- American Geophysical Union (AGU)
- American Meteorological Society (AMS)
- American Water Resources Association (AWRA)
- National Association of Geoscience Teachers (NAGT)
 - NAGT Geoscience Education Research Division