## **Lauren E Grimley**

# Research Scientist: Water Resources Engineering The Water Institute of the Gulf

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#### **Education**

### M.S. in Civil & Environmental Engineering, May 2018

University of Iowa, Iowa City, Iowa

#### B.S. in Engineering, Civil & Environmental Concentration, May 2016

Calvin College, Grand Rapids, Michigan

#### **Research Interests:**

Urban hydrology and hydraulics, hyper-resolution modeling, flood forecasting, flood risk management, natural hazards assessment, energy-water nexus

#### **Professional Experience:**

The Water Institute of the Gulf 2018-Present

• Research Scientist: Water Resources Engineering

Iowa Flood Center 2016-2018

• Graduate Research Assistant

**CUAHSI National Water Center Innovators Program** 

• Course Coordinator 2018

• Research Fellow Summer 2017

Halff Associates Summer 2016

• Water Resources Engineering Intern

**Related Experience:** 

Calvin Energy Recovery Fund 2014-2016

• Intern

IDS Engineering Group 2014-2015

• Civil Engineering Intern

H & H Resources, Inc.

• Water Resources Engineering Intern Summer 2013

### **Technical Tools:**

- Modeling Software XPSWMM, HEC-RAS, HEC-HMS, GSSHA
- Software & Programming Languages ArcGIS, QGIS, MATLAB, RStudio, Python

#### Awards, Honors:

- Graduate & Professional Student Government Travel Grant, University of Iowa, Dec 2017
- Center for Global and Regional Environmental Research (CGRER) Graduate Student Travel Award, University of Iowa, July 2017
- American Council of Engineering Companies (ACEC) a/e ProNet Engineering Scholarship, 2016
- ACEC of Michigan Scholarship, 2015 & 2016
- American Society of Civil Engineers West Michigan Branch Scholarship, 2015-16
- Calvin College Engineering & Sustainability Scholarship, 2015-16
- Calvin College Alumni Scholarship, Jan 2015

#### **Teaching Experience:**

Teaching assistant for Fluid Mechanics (ENGR 2510) at the University of Iowa. Instructed fluid dynamics lab experiments, uncertainty analysis, and technical report writing. Spring 2018.

#### PRESENTATIONS AND PUBLICATIONS

- 1. Aristizabal F., Grimley L. E., et al. 2018. National Water Centers Innovators Program Summer Institute Report. Consortium of Universities for the Advancement of Hydrologic Science, Inc. Technical Report No 15.
- 2. Grimley, L.E. (2016). Urban and Rural Flood Forecasting: A case study of a small town in Iowa (master's thesis). Available from ProQuest Dissertations and Theses database. (UMI No. 10752395)
- 3. Grimley, L.E., et. al, Grid vs Mesh: The case of Hydrologic Modeling in Urban Landscapes, American Geophysical Union (AGU) Fall Meeting, New Orleans, LA, December 11-15, 2017.
- 4. Grimley, L.E., D.T. Tijerina, M. Khanam, E.D. Tiernan, Hyper-resolution Modeling in Urban Landscapes, Johnson J.M, Coll J M, et al. 2017. National Water Centers Innovators Program Summer Institute Report. Consortium of Universities for the Advancements of Hydrologic Science, Inc. Technical Report No 14.
- Grimley, L.E., D.T. Tijerina, M. Khanam, E.D. Tiernan, Unstructured Mesh Resolution in an Urban Watershed, CUAHSI Hydroinformatics Conference, University of Alabama, Tuscaloosa, AL, July 25-27, 2017.
- 6. Urban Hydrology, Poster Presentation, Iowa Legislative Breakfast, Des Moines, IA, December 2016