

## EDUCATION

### **Ph.D. in Geography**

University of Florida, Gainesville, FL

Dissertation topic: *Extreme value analysis and hydro-climatology*

- Concentration in Climate Science, Earth Systems

*Expected Summer 2026*

### **M.S. in Geography**

University of Florida, Gainesville, FL

Thesis: *Spatial and Temporal Variability in the Characteristics of Extreme Daily Rainfalls in Ghana*

- Concentration in Climate Science

*August 2021*

### **B.S. in Environmental Science**

University of Florida, Gainesville, FL

Honors Thesis: *Predicting monthly streamflows and their variability from limited historic records in the Tárcoles watershed, Costa Rica.*

- Double Minor in Geography and in Soil and Water Science

*May 2019*

### **Associates in Arts**

Tallahassee Community College, Tallahassee, FL

*June 2015*

## HONORS AND AWARDS

**Climate Specialty Group - Student Paper Competition 3<sup>rd</sup> Place**, American Association of Geographers Conference

*April 2021*

**Best Masters Oral Presentation**, Florida Society of Geographers Conference

*February 2021*

**UF Geography - Department Award for Research Excellence**, University of Florida

*December 2020*

**Ryan Poehling Fellowship**, University of Florida

*November 2020*

**Grinter Fellowship**, UF Graduate School

*Fall 2019 - Spring 2022*

**Best Undergraduate Oral Presentation**, Florida Society of Geographers Conference

*February 2019*

**Best Undergraduate Oral presentation**, Florida Society of Geographers Conference

*February 2018*

**Summa Cum Laude**, University of Florida

*May 2019*

**Dean's List**, University of Florida

*December 2016 - May 2019*

**President's Honor Roll**, University of Florida

*December 2016 - April 2017*

**Valedictorian**, Wakulla County High School

*June 2015*

## RESEARCH & WORK EXPERIENCE

**Hydrologist 2**, St. John's River Water Management District

*December 2022 – present*

- Start new full-time position as a Hydrologist with SJRWMD

**College Intern**, Bureau of Watershed Management and Modeling, St. John's River Water Management District

*June 2022 - September 2022*

- Complete a literature review of existing baseflow separation methods
- Perform data analysis using USGS Groundwater Toolbox and Hydrologic Toolbox, R and other programs and tools to analyze baseflow and compare results from different methods
- Help develop a modeling framework for the evaluation of baseflow separation methods

**Graduate Assistant**, Geography Dept, University of Florida

*August 2019 - May 2021*

- Investigated characteristics of extreme daily rainfall at 19 Ghana locations to determine the interannual variability of extreme rainfalls nationally, and assess recovery from West African drought
- Used Excel, ArcMap, R and other programs to perform analysis on precipitation data
- Summarized and organized data and results; and wrote thesis documenting work and findings for completion of Masters degree
- Presented research at conferences

**University Scholars Program Researcher**, University of Florida *March 2018 - April 2019*

- Defined the characteristics of historical winter precipitation at Tallahassee and investigated/modeled relationship with phases of El Niño-Southern Oscillation
- Summarized and organized data and results; and wrote paper documenting work and findings
- Presented research at conferences

**Undergraduate Researcher**, Geography Dept, University of Florida *May 2017 - March 2018*

- Developed a statistical model to predict monthly streamflow variability in the Tárcoles watershed, Costa Rica, where observations are historically limited
- Summarized and organized data and results; and wrote paper documenting work and findings
- Presented research at conferences

**Field Science Intern**, Florida Springs Institute *Summer 2019*

- Assisted with ecological field data collection and analysis
- Prepared and maintained monitoring equipment
- Entered data in Excel spreadsheets, and using the data to create graphs and figures

**Ambassador**, Southern Scholarship Foundation *August 2017 - May 2018*

- Organized socials, fundraisers, and volunteer opportunities, and welcomed new residents to the SSF program - which provides rent-free housing to students from low socio-economic backgrounds who demonstrate excellent academic merit through cooperative living - many of whom come from racial and ethnic minority groups, are first-generation, were housing insecure before SSF, etc.

**Undergraduate Intern**, FAS Phycology Lab, University of Florida *Summer 2017*

- Entered data into computers and performed organization/cleaning around the lab
- Filtered zooplankton and created phytoplankton slides
- Helped collect samples for Bureau of Ocean and Energy Management project in the field

### **TEACHING & MENTORING EXPERIENCE**

Graduate Teaching Assistant, University of Florida, Gainesville FL

**Instructor of Record**, GEO2242: Extreme Weather (online) *Summer 2020 – Fall 2022*

- Lead grading (~100 undergraduate students), responded to students as primary contact, created and managed Canvas shell
- Delegated tasks, such as grading & responding to students, to other TA, and taught them how to use Canvas

**Course Development**, GEO2242: Extreme Weather *Spring 2022*

- Member of the Geography Department Course Development Committee
- Lead developer for the class GEO2242: Extreme Weather, responsible for the redesign and development of the course
- Input and assist on the 5 other course developments and Canvas Course Shells (Prisoners of Geography, Geography of Africa, Why Geography Matters, The Digital Earth, & The World and Big Data)
  - As well as the 'Getting to know Geography' module creation

**Grader**, GEO2242: Extreme Weather (online) *Fall 2019 - Spring 2020*

- Worked with instructor of record to grade assignments, answer emails and questions, change due dates, etc.

Mentor, University of Florida, Gainesville FL

**Undergraduate Research Scholars Program** *June 2018 - April 2019*

- Give advice and assist mentee with general university inquiries and with major related courses, and aid the program in building a Research Learning Community by facilitating research growth and development in undergraduates

**School of National Resources and the Environment** *March 2018 - April 2019*

- Give advice and assist mentee with general university inquiries and with major related courses, and work with and build relationships with other Environmental Science majors as part of the SNRE Student Council

## **PUBLICATIONS**

- **Capps, H.** Waylen, P. & Owusu, K. (in preparation) Spatial and temporal variability in the characteristics of extreme daily rainfalls in Ghana.
- **Capps, H.** (2019). Interannual Variability in Daily Characteristics of Winter Precipitation at Tallahassee, 1949 - 2016. *The Florida Geographer*, 51(1). <https://journals.flvc.org/flgeog/article/view/118174>
- **Capps, H.** (2018). Predicting monthly streamflows and their variability from limited historic records in the Tárcoles watershed, Costa Rica. *UF Journal of Undergraduate Research*, 20(1). doi:10.32473/ufjur.v20i1.106980.

## **Conference Presentations**

- **Capps, H.\***, Waylen, P. & Owusu, K. (2022). Interdecadal Changes in Extreme Rainfalls in Ghana. Oral presentation at the Advances in Extreme Value Analysis and Application to Natural Hazards 5th International Conference. March 2022.
- **Capps, H.\***, Waylen, P. & Owusu, K. (2021). Interdecadal Changes in Extreme Rainfalls in Ghana. Oral presentation at the American Association of Geographers Annual Meeting, Climate Specialty Group. April 2021.
- **Capps, H.\***, Waylen, P. & Owusu, K. (2021). Interdecadal changes in extreme rainfalls in Ghana. Oral presentation at the Florida Society of Geographers Annual Meeting. February 2021.
- **Capps, H.\***, Waylen, P. & Owusu, K. (2020). Regionalization of Annual Precipitation in Ghana. Poster presentation at the Florida Society of Geographers Annual Meeting. February 2020. <http://geog.ufl.edu/2020/02/07/regionalization-of-annual-precipitation-in-ghana/> .
- **Capps, H.\*** and Waylen, P. (2019). Interannual Variability in Daily Characteristics of Winter Precipitation at Tallahassee, 1949 – 2016. Poster presentation at the University of Florida Undergraduate Research Symposium Annual Meeting. April 2019.
- **Capps, H.** (2019). Interannual Variability in Daily Characteristics of Winter Precipitation at Tallahassee, 1949 – 2016. Oral presentation at the Florida Society of Geographers Annual Meeting. February 2019.
- **Capps, H.** (2018). Predicting monthly streamflows and their variability from limited historic records in the Tárcoles watershed, Costa Rica. Oral presentation at the Florida Society of Geographers Annual Meeting. February 2018.

## **OTHER SKILLS**

- **Technical:**
  - Coding and statistics in R programming language
  - Mapping is ArcMap and ArcGIS
  - Learning/working knowledge of USGS Groundwater and Hydrologic Toolboxes
- **Language:**
  - Spanish
    - Proficient: reading and writing
    - Conversational: speaking and listening