

## **Fisseha Berhane**

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### **Education**

*Johns Hopkins University*, Baltimore, MD --- Ph.D. in Atmospheric Physics      Sep. 2015  
*Johns Hopkins University*, Baltimore, MD ----M.A. in Atmospheric Physics      May 2013  
*University of Connecticut*, Storrs, CT -----M.S. in Hydro-climatology      May 2011  
*Mekelle University*, Ethiopia -----B.Sc. in Civil Engineering      June 2006

### **Research Positions**

*Graduate Research Assistant*, Department of Earth and Planetary Science, Johns Hopkins University, Baltimore, Maryland.      August 2011 – 2015

- Built rainfall prediction models, with various machine learning techniques such as Tree-based ensemble models (Random Forest and Boosting), Support vector Machines and Artificial Neural Network, with **R**, HTML, JavaScript, and CSS.
- Employed various statistical analysis and data mining techniques using **Python** to understand interactions of atmospheric waves and their impacts on rainfall using large volume climate data.

*Graduate Research Assistant*, Department of Natural Resources and the Environment, University of Connecticut, Storrs, CT      2009 – May 2011

- Built and evaluated a model that predicts Nile River flow. Further, examined possible impacts of climate change on river flow using different climate scenarios.
- The main tools I used in this study: **R**, **Python** and **GIS**.

### **Publications and Presentations**

Three peer-reviewed publications in the Journal of Climate (JCL), which is among the most prestigious Journals in Atmospheric Science, one in preparation and a master's thesis.

More than 12 presentations, including in prestigious international conferences such as the American Geophysical Union (AGU) and the American Meteorological Society (AMS).

### **Teaching Experience**

*Teaching assistant (TA)*, Department of Earth and Planetary Science, The Johns Hopkins University, Baltimore, Maryland.      Spring 2013

*Assistant Lecturer*, Department of Civil Engineering, Mekelle University, Ethiopia      2006-2009

### **Skills**

Python, R, Matlab, Spark, HTML, CSS, JavaScript, SQL, Hadoop (familiar), MapReduce (familiar).