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# Jonathan Weaver

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Midwestern Regional Climate Center  
2204 Griffith Drive  
Champaign, Illinois 61820

## PROFESSIONAL EXPERIENCE

### **Climatologist / Applications Developer**

June 2017 to Present

*Midwestern Regional Climate Center*

Champaign, Illinois

- Developed scripts for online climatological products to be used by the public
- Aided in conducting research projects
- Utilized Artificial Intelligence techniques to aid in climatological analysis
- Coordinated with other climatologists to create new climatological tools for the public
- Performed advanced computational techniques within a Unix/Linux environment

### **Graduate Teaching Assistant**

August 2015 to May 2017

*Mississippi State University*

Starkville, Mississippi

- Instructed lab sections for Physical Geography, Computer Methods in Meteorology, Statistical Climatology, Satellite Meteorology, and Applied Climatology
- Informed undergraduate students on meteorological and geological processes
- Managed grading and academic evaluation of students
- Tutored students on material pertinent to the courses

### **Graduate Programming Intern**

May 2016 to July 2016

*Midwestern Regional Climate Center*

Champaign, Illinois

- Created back-end scripts to operate public webpage climatological products
- Interacted within a Unix/Linux environment
- Analyzed climatological data using advanced coding techniques
- Proposed new climatology products and tools for webpage
- Developed and maintained products using the Applied Climate Information System (ACIS)
- Performed statistical analysis on climatology data for research purposes

### **Field Meteorologist and Guide**

May 2015 to June 2015

*Extreme Tornado Tours*

Norman, Oklahoma

- Forecasted for location and intensity of tornadic environments
- Ensured safety and enjoyment of guests
- Educated guests on advanced meteorological processes
- Managed long-distance navigation
- Operated large vehicles through severe weather events
- Coordinated with other field meteorologists to ensure forecast accuracy

### **Data Collection Supervisor**

May 2014 to July 2014

*TornadoVideos.net*

Norman, Oklahoma

- Maintained and utilized data collection probes
- Involved with data collection from close range tornado intercepts
- Provided data interpretation and analysis from probes

- Interpreted live radar, satellite, and observation data to forecast projected tornado path and strength
- Collaborated alongside seasoned meteorologists in order to obtain data

## **Meteorological Software Analyst**

May 2013 to July 2013

*Visual Analytic Systems*

Starkville, Mississippi

- Aided in the development of a 3-dimensional weather model visualization program
- Tested software for errors and glitches
- Supplied advice regarding software improvement and streamlining
- Generated consumer insight as well as user interface optimization
- Supplied weekly written productivity reports regarding testing process

## EDUCATION

### **Mississippi State University**

Starkville, Mississippi

Master of Science with High Honors

GPA: 4.0/4.0

Geoscience Major; Professional Meteorology Concentration

May 2017

Thesis: *Severe Weather Parameters and Their Effectiveness on Forecasting Tropical Cyclone Induced Tornadoes*

### **Mississippi State University**

Starkville, Mississippi

Bachelor of Science with Honors

GPA: 3.49/4.0; Major GPA: 3.96/4.0

Geoscience Major; Professional Meteorology Concentration

May 2015

## HONORS AND ACTIVITIES

East Mississippi Chapter of the American Meteorological Society and National Weather Association

Spring 2013 – Spring 2015

Famous Maroon Band

Fall 2011 – Fall 2014

## SKILLS AND ABILITIES

### Weather and Climate

- Repeated experience with forecasting through both current observation and forecast models
- Experience in the field with moment-to-moment forecasting regarding severe weather events
- Extensive education regarding climatological processes
- Strong background working with climatological data and statistical usage of data

### Research

- Involvement in undergraduate research regarding river flooding events
- Training in statistical analysis of flooding events for pattern analysis and interpretation
- Collaborated alongside the Lower Mississippi River Forecast Center
- Completed a graduate thesis on the utilization of artificial intelligence on forecasting tropical cyclone induced tornadoes
- Experience performing independent research with the intention of publication

## Computer Skills

- Proficient with Unix/Linux systems
- Advanced understanding of Microsoft Office products including Word, Excel, and PowerPoint
- Fluent in both R and Python programming languages
- Training in GIS functionality
- Competent at using netCDF and Gridded Binary data formats
- Familiar with C++ programming language
- Experience with using artificial intelligence machine learning techniques such as support vector machines

## Language

- Proficient understanding of Spanish
- Practice in writing, speaking, and understanding of the Spanish language