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I am originally from Nashville, Tn, and had a keen interest in weather from a very young age. I came to the University of Oklahoma in the fall of 2013 to begin my undergraduate degree. I started work for the School of Meteorology at that same time, working for the [Arctic and Antarctic Atmospheric Research Group \(AAARG\)](#) under [Dr. Cavallo](#) and Dr. Parsons.

My research consists of running, maintaining, and evaluating a real-time hemispheric [WRF](#) centered at the North Pole, with a focus of Tropopause Polar Vortices (TPVs). We are hoping to improve weather model reliability and performance beyond 5 days by better resolving TPVs and their impact on mid-latitude weather. This is because TPVs have a lengthy lifespan and can be easily traces along the dynamic tropopause. In addition, I am providing a WRF comparison to a new generation of atmospheric modelling known as the [Model for Prediction Across Scales - MPAS](#), with the aim to bring MPAS on the same level as WRF and beyond.

In the Spring of 2014, I became a student volunteer at the [National Weather Service](#) office in Norman, Oklahoma, and was also elected as the Director of Development for the [Oklahoma Weather Lab \(OWL\)](#). I now run the development side, known as [HOOT](#) - providing OWL members with quality and timely weather data, maintaining computational systems, and teaching members how to program and create their own projects.

I am also an avid Python programmer, and am currently working on many programming projects, including a comprehensive sounding analysis and research program originally conceived by folks at the Storm Prediction Center. I've also written a package for surface objective analyses of METAR stations called [AWIDS](#), and a package of tools for post-processing WRF model output called [wrftools](#).

In my spare time, I enjoy archery and observing thunderstorms.

