

My name is Adam Burns and I am a senior in Atmospheric Sciences at the University of Illinois – Urbana-Champaign. I specialize in developing, designing, and manufacturing low-cost data logging circuits for use with meteorological instrumentation. With over 5 years of experience in programming languages such as C/C++, Java, Javascript, Ruby, and FORTRAN, I write all the firmware and software for my circuits. Over the past two years I have researched and developed a variety of low-cost data logging solutions. For under \$200 each, I have created a fully functional mobile weather station that includes all the required instruments to record temperature, relative humidity, pressure, wind speed and direction directly to an SD card. Currently, I am designing a new low-cost temperature, pressure, and relative humidity sensor, as well as implementing wireless transmission of data for real-time applications.



During the fall semester, I helped teach undergraduate students how to use my data logging circuits for their final projects in a meteorological instrumentation class. In group and one-on-one settings, I explained how specific sensors worked, how they interacted with my circuit, and how to effectively utilize the technology. Projects that I assisted on ranged from a UAV quadcopter with CO2 concentration, temperature, pressure, and humidity sensors attached to an array of mobile weather stations arranged as a small mesonet.

Under the guidance of Professor Larry Di Girolamo, I had the opportunity to research 3D display technologies, as well as improve a stereoscopic display program for use with imagery gathered from the MISR satellite. The experience I gained from this project was vastly beneficial to my academic career, as I was guided through the intricacies of conducting research in a productive and scientific manner. Additionally, I was able to directly apply my programming abilities by improving pre-existing software in order to create an overall better viewing experience. I am confident that I would not have been able to accomplish this goal without my background in computer sciences.

Best described as a perfectionist, I pride myself in my attention to detail and work ethic. Over the past year I was nominated for the university-wide Undergraduate Student Worker of the Year as well as the University of Illinois' Graduate Library Outstanding Undergraduate Worker of the Year. Please feel free to contact me at any time – I would be more than happy to discuss my experience and qualifications in more detail.

Adam J. Burns
970-823-2652
Adam@aburns.us
AdamBurns.us