**Earl Wood**

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1605 Johnson Drive

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**Electronics Engineer / Circuits & Microcontrollers**

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| **SUMMARY** | | | |
| I am a well-versed professional, finishing my PhD in Physics this July 2015, working as an Electronics Engineer in a multi-disciplinary team. I have experience in organizing projects and taking them from concept to completion. I work well with customers to deliver high quality products at low cost. Also, I am proficient at writing instructional material for technical training of student and possess excellent communications skills and can work independently and in a team environment. | | | |
| **TECHNICAL SKILLS** | | | |
| * C++ * Python * JAVA * Processing.IDL * MySQL * Super Mongo * Image Analysis * Signal Processing * Electrical Engineering | * Data Analysis * Hardware Interfacing * GUI design * Microprocessing * Technical Writing * Microsoft Office * Linux/Unix * Analog and digital circuits * ADC’s | * Solenoids * Oscilloscopes * Digital multimeters * Signal testing * Circuit Testing * TinyCAD * Raspberry Pi * Arduino | |
| **EDUCATION** | | | |
| **Ph.D. in Physics:** graduation expected in 2015  University of Wyoming – Laramie, WY  **B.S. in Physics:**  2006  Western Kentucky University – Bowling Green, KY | | | |
| **PROFESSIONAL EXPERIENCE** | | | |
| **University of Wyoming**, Department of Botany  Laramie, WY (May 2014 – Present)  Electronics Engineer   * Developed a process control system for maintaining unique volumetric water contents across multiple soil samples * Designed a customer focused replacement data logging system at the cost of the original * Tested all equipment to determine accuracy, precision, and feasibility of each design * Maintained bills of materials for each project and worked within a budget * Wrote instructional manuals for each finished project including electrical schematics, assembly and operational instructions.   **Earl Wood; resume page 2/2**  **PROFESSIONAL EXPERIENCE, CONTINUED**   * Utilized Serial communication to interface multiple microcontrollers with computers and developed JAVA based GUI control systems * Built analog and digital circuits around microcontrollers programmed in C++ * Collaborated with researchers from other disciplines on each project | | | |
| **University of Wyoming**, Department of Physics and Astronomy  Laramie, WY (August 2010 - May 2015)  Teaching Assistant   * Developed a new course in electronics and micro-processing (based on the Arduino and Raspberry Pi) for physics majors * Designed experiments, equipment, and wrote the instructional manual for technical training of the students * Lead groups of students in development of class projects using DC drives, stepper motors, Bluetooth, RFID, HIDs, and a variety of sensors. * Developed excellent communication skills through teaching all physics courses through junior level | | | |
| **University of Wyoming**, Department of Physics and Astronomy  Laramie, WY (May 2011 - August 2013)  Research Assistant   * Operation of a multi-million dollar observatory for nightly observing runs * Image processing and spectral analysis of astronomical spectra using IRAF * Uploading and sharing of data remotely using SSH and SVN | | | |
| **Ball State University**, Department of Physics and Astronomy  Muncie, IN - 2008 to 2010  Graduate Assistant   * Managed operations of two public and one teaching computer lab including technical support, installation and updating of software, and virus removal * Maintained student accounts on the Window Server * Operated the large format poster printer for all hard sciences on campus | | | |
| **Western Kentucky University**  Bowling Green, KY (2004 to 2008)  Research Assistant   * Image analysis and signal processing using IRAF and IDL. * Archival Research and Database Mining using MySQL | | |
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| **AWARDS** | | |
| **Ellbogen Outstanding Graduate Assistant Teaching**  May 2015   * The Ellbogen Outstanding Graduate Assistant award goes to one graduate teaching assistant in each college each year | | |