**TECHNICAL SKILLS**

* Programming Languages: C/C++, Python, Java, MIPS, VHDL, MATLAB
* Software: Linux, MultiSim, NI Ultiboard, SPIM, Windows
* A extensive understanding of computer hardware, including both trouble shooting and building various systems (primarily Windows and Linux)
* Operating System skills such as concurrency, pthread library, system calls, piping, condition variables.
* Integration of software and hardware
* Circuit Board Design

**EXPERIENCE**

* Designed and developed a take-home airflow sensor for asthmatics. The device allows an asthmatic to self-administer an airflow test and send the data via Android app to a medical health professional. The system is deployed on a Raspberry Pi Zero
* Developed custom shell based on TCSH. The shell supports various built-in and external commands such as *which, where, pwd, list, pid, kill, prompt, setenv, printenv* as well as control signals and wildcards.
* Developed a musical instrument which is played on an Arduino Uno with a custom PCB. Volume control is achieved with a variable resistor in conjunction with an LM386 op-amp. Pitch control is achieved with a FSR. The Arduino controls the PWM from our analog input (FSR).
  + Hardware for PCB was first designed in NI MultiSim, then transferred to NI Ultiboard for fabrication.