Wilson Ryan

(859) 361-3027
2205 Lakeside Drive
Lexington, KY 40502
awryanz@gmail.com
wilsonryan.com

Education

Purdue University
B.S. Electrical Engineering, spring 2016

Relevant coursework
Digital Signal Processing, ASIC Design, Digital Systems and Design, Signals and Systems, Semiconductor Devices, Microprocessor System Design, Probabilistic Methods, Noise Control, Linear Circuit Analysis

Skills
Printed Circuit Board layout and design
Embedded systems design and debugging
Experience with ARM development
Linear circuit analysis and design
Experience with DSP in MATLAB
Working knowledge of many DSP concepts and practices
Experience with electronics measuring equipment
Experience designing and modifying both analog and digital audio related circuits including drum machines, oscillators, guitar pedals, amplifiers, mixers, microphones, voltage controlled filters, and speakers

Software / Languages
C / ASM / Verilog / MATLAB / Python / ABEL-HDL
Altium Designer / Eagle CAD / CircuitMaker / LTSpice / CoIDE
Pro Tools / Digital Performer / Reason / Bitwig / Live

Experience

Audio Engineer (both freelance and groups)   2006-Present
  -designed electronic circuits for new instruments, effects processors, guitar pedals, amplifiers
  -modified and repaired a variety of electrical equipment
  -recorded and engineered songs in a variety of settings
  -acted as mixing engineer for local musicians
  -learned collaboration techniques and many team skills
  -helped raise money for a number of local and national charities

Chief Engineer, Kelly Nursery LLC (Lexington, KY)   2011-2014
  -designed and managed electronically automated irrigation systems
  -designed a portable fertilizer injector
  -troubleshooted and repaired implemented systems

Current Project

Personal polyphonic synth "synthBuddy"   2015-Present
  -based on STM32F4 microcontroller (ARM Cortex M4)
  -utilizing 12bit audio DAC communicating over I2C
  -MIDI controlled via UART
  -original PCB layout and design