Cody Chen

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Permanent Address: 2045 West St. Wrentham, MA 02093
Currently Located: Seattle, WA

EDUCATION

B.S. in Computer Engineering from Tufts University, 2015
GPA: 3.16

WORK EXPERIENCE

Researcher *Summer 2015*	*Tufts University, Medford MA* • Researched a new method of acoustical analysis on a grant from Zildjian Cymbals. • Prototyped device using a Xilinx Spartan 6 and a LabVIEW myRIO FPGA / Real Time machine to quickly gather information about cymbal strikes. • Circuit Design and Analog / Digital Signal Processing.
Researcher *Summer 2014*	*Tufts University, Medford MA* • Investigated uses for drones as automated structural monitors in lunar habitation modules in conjunction with passive sensors. • Used openCV to encode flight path instructions into 2D wall mounted fiduciary barcodes that the drone could read then execute. • Extensive use of linux and C.
Intern *Summer 2013*	*Amazon Robotics (Formerly Kiva Systems), North Reading, MA* • Interned with the Hardware Quality Assurance Team. • Designed and coded lifetesting routines and converted old scripts from bash to python. • Performed long term monitoring and data aquisition to try to indentify possible modes of failure.

SKILLS/SOFTWARE

C	Python	VHDL	Xilinx ISE	LTSpice	Assembly	Digital Circuit Design	PCB Layout
C++	MATLAB	Verilog	Quartus	Spectre	Virtuoso	Analog Circuit Design	Arduino

PROJECTS

- **Heart Monitor App**: Built an Arduino based medical device containing an EKG, a pulse meter and thermometer. Capable of streaming live medical data to an iPad.

- **MIDI Lightbox**: Electronic musical instrument. Uses an array of colored cubes positioned over I2C color sensors to generate a MIDI melody. Other sensors such as buttons, linear potentiometers and a joystick affect the note andvoice.

- **Arduino Drone Pilot**: Designed an onboard autonomous navigator for a popular drone platform using an Arduino YUN. Navigates with GPS and a compass.

- **Swarmbots**: Designed and built a pair of robots capable of infrared commuunications and programmed them to work together to complete a tabletop task.

- **Glowblade**: Compact PCB for an specific number and high density ofNeopixel LEDS. LiPo battery powered and controlled by a Teensy microcontroller.