

JAY S. COGGIN

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EDUCATION

University of Miami, Coral Gables, FL

M.S. in Music Engineering

2011 – 2015

Concentration in Digital Signal Processing in Audio Software

GPA: 3.8

University of Florida, Gainesville, FL

B.A. in Physics, Minor in Electrical Engineering

2007 – 2011

Concentration in Electromagnetic Wave Propagation and Digital Signal Processing

GPA: 3.1

SKILLS

Software	Xcode, Visual C++, IAR Workbench, OmniGraffle, Logic Pro
Languages	C++, Objective C, MATLAB, Python, Latex
APIs/Libraries	Core Audio, Audio Units, Accelerate Framework, VST, C++ STL, Cocoa
Hardware	Soldering, Oscilloscopes, Function Generators, Digital Logic, Pro-Audio Equipment

EMPLOYMENT

Apple, Inc., Cupertino, CA

Audio Prototyping Software Engineer

2013 – current

Work closely with acoustics and hardware teams to bring up driver and DSP software

for new projects. Contribute to and implement DSP algorithms as Audio Units.

Develop Cocoa apps for internal demos.

FORE Center, Coral Gables, FL

Wireless Systems/Software Engineer

2012

Integrated multiple external inertial sensors with iOS application using Bluetooth Low

Energy (BLE). Wrote firmware for BLE microcontroller and designed iOS app that

manipulated audio processing based on streaming sensor data.

iOS Software Consultant

2012

Developed athletic performance assessment app for the University of Miami Athletics

Department. Co-developed “*Amputee Mobility Predictor*” iPad app on App Store.

Information & Display Systems LLC, Jacksonville, FL

Software Tester/QA

2008

Worked closely with team of software engineers in testing a variety of sports scoring software

used by the PGA Golf Tournament and national sports broadcasting stations.

PROJECTS

Master’s Thesis

“Automatic Design of Feedback Delay Network Reverb Parameters for Perceptual Room Impulse Response Matching”

MIDI Over Bluetooth Low Energy with iOS Device

- Developed first documented use of Bluetooth Low Energy (BLE) for sending MIDI messages between a MIDI and iOS device. Prototyped hardware to translate between BLE messages and MIDI UART communication. Designed and printed hardware enclosure for PCB. Developed iPad soft-synth and MIDI performance app to demonstrate.

Megasquirt Automotive ECU Tuning iPad App

- Developed a BLE to RS-232 dongle along with an iPad app to enable monitoring and tuning an open-source automotive fuel-injection engine controller over BLE.

BLE Development Board

- Designed and built a development board based around the Texas Instruments CC2540 BLE SoC to enable formatted string printing through an SPI to UART bridge for low-overhead, effective debugging. Used to develop BLE projects above.