NICHOLAS ARNER

330-418-1965   //   nicholasarner@gmail.com   //   skype:nicholasarner1   //   nickarner.com

Skills

Development languages: C/C++, Python, Swift, Objective-C
Proficiency in design applications: Sketch, PaintCode, and Fritzing
Creative coding and prototyping: Max/MSP, Pure Data, Open Frameworks, Processing,
Wekinator, Arduino, RaspberryPi, and Quartz Composer

Specialities & Interests

emerging technologies , human-computer interaction research, gestural interface design,
product development, circuit prototyping, interactive machine learning, sensor system
design, audio interfaces

Experience & Projects

SELECTED ALPHA DEVELOPER, GOOGLE PROJECT SOLI; REMOTE/SF – OCTOBER 2015- PRESENT
I was one of 80 developers worldwide to be accepted into Google's Project Soli Alpha Developer Project,
and was one of 14 developers to be invited to Mountain View to workshop Soli use cases. As an Alpha
Developer, I helped ATAP benchmark and evaluate Sole's capabilities and use-cases. My work focused
specifically on creating instruments using Soli.

ASSOCIATE CONSULTANT, WORKSTATE CONSULTING; COLUMBUS, OHIO – FEBRUARY 2016- PRESENT
I am the lead or co-lead developer on mobile app development projects. Worked both independently and
in collaboration with designers, project managers, and stakeholders.
SportsLine by CBS Interactive: Lead developer; worked closely with designers and external stakeholders
Currently working on: Developing an iPad Pro-based kiosk app in Swift for a gov't planning agency

CORE CONTRIBUTOR, AUDIOKIT; REMOTE – AUGUST 2014 - OCTOBER 2016
I am a core contributor of AudioKit, an open-source audio analysis, synthesis, and processing toolkit for iOS
and OS X apps. My contributions include operation defaults, presets, tests, and can be viewed on my
GitHub.

DEVELOPER AND CO-CREATOR, DELAY TRACKER; REMOTE – NOVEMBER 2014 - PRESENT
The Delay Tracker app allows intercity rail passengers to report train delays to the Federal Rail
Administration. Co-designed in partnership with High Speed Rail USA and developed in Objective-C. More
info found here.

IOS/OS X DEVELOPER, SQUIRRELS LLC; NORTH CANTON, OHIO – JANUARY 2015 - JANUARY 2016
The core product I worked on was Reflector, a wireless mirroring and streaming receiver for iOS/Android.
Reflector 2.1: Took the lead on a big feature update in Objective-C
Director 2.1: Updated how streaming worked with the iOS9 update
Reflector Student: Co-developed in Swift from the ground up, from prototype to launch. Collaborated
closely with the design team during product development.

RESEARCH INTERN, FRAUNHOFER IIS; ERLANGEN, GERMANY – OCTOBER 2013 - DECEMBER 2013
I conducted research on human heart sonification using mobile devices. I helped prepare for the 2013
International Sonification Conference; co-presented on"High-Level Audio Programming for Mobile
Devices."

Education

MSc Research in Music Technology, 2014 | University of York (York, UK)
Thesis: Investigating the use of of multi-touch gestures in music interaction
Audio Technology Work-Study, 2012 | The Banff Center (Banff, Canada)
Machine Learning for Musicians and Artists, 2016 | Kadenze Certified (Online)