Reed Weichler

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EDUCATION

- **UC Davis** — Davis, CA
  Bachelors in Computer Science — *Sept. 2012 – Jun. 2017*

PUBLIC PRODUCTS

- **Cylinder** — iOS, Cydia Substrate, Lua, Objective-C
  Animation platform — *Released Feb. 2014*
  - **Description**: Cylinder is an open source platform for iOS which modifies the home screen (SpringBoard) to allow users to create custom icon animations while swiping through their apps. For example, you can make your icons animate to take the form of a 3D cube or a snake. Animations are created through user-made Lua scripts, or by combining animations that others have created.
  - **Impact**: The community response has been overwhelmingly positive and Cylinder has unseated the then-popular tweak, Barrel. To date, Cylinder has been downloaded over 1 million times. 45 icon animation scripts are currently bundled with Cylinder. 16 of them were made by me, the rest were written by the community. When you take combinations into account, there are 35,184,372,088,832 possible effects.
  - **Source code**: https://github.com/rweichler/cylinder

- **EqualizerEverywhere** — iOS, Cydia Substrate, Lua, C, C++, Objective-C
  System-wide graphic equalizer — *Released Jul. 2014*
  - **Description**: EqualizerEverywhere is an iOS runtime modification (tweak) that adds an equalizer to the Control Center. It applies to the system audio output, so it not just restricted to a single app. This is useful when the music app you are using does not have an equalizer built-in. There are 10 bands, ranging from 60Hz to 16KHz
  - **Impact**: 3 years later, EqualizerEverywhere is still the only system-wide equalizer available for iOS. It has been downloaded over 200,000 times.

PRODUCTS IN DEVELOPMENT

- **EQE** — Nginx/OpenResty, JavaScript, iOS, Cydia Substrate, Lua, Objective-C
  Audio platform — *Expected release Nov. 2017*
  - **Description**: EQE is an in-development platform for iOS and the web. For iOS, it is a Lua-scriptable system-wide parametric equalizer and playback history tracker (also system-wide). For the web, it is a place for people to congregate and discuss music and audio.
  - **Expected impact**: Upon release, EQE will be the only system-wide parametric equalizer available for mobile devices, including Android. The web service should also be a viable alternative to Last.FM.

PERSONAL PROJECTS

- **Sunnyveil**: A from-scratch 3D game engine with an emphasis on Lua scripting. It has bindings to the Bullet physics engine and OpenGL.
- **Lucy**: Open source Lua / Objective-C bridge and runtime analysis/debugging tool for iOS. https://github.com/rweichler/lucy
- **Wuigi**: Open source Mario clone written in Java. https://github.com/rweichler/wuigi
- **Aite**: Open source build system (like GNU Make). https://github.com/rweichler/aite