Reed Weichler

rweichler@gmail.com https://github.com/rweichler

## **EDUCATION**

**UC** Davis

Bachelors in Computer Science

Graduated in 2017

## Public Products

EQE

OpenResty, iOS, Cydia Substrate, LuaJIT, C, Objective-C, Core Audio

Audio platform Released Dec. 2017, still under active development

- Description: System-wide parametric equalizer, playback history tracker, and social platform for jailbroken iOS. Available on Cydia.
- o Impact: 500 daily active users and about 2000 weekly active users. EQE is the only system-wide parametric equalizer for mobile devices (EQE is the only one for iOS, and none exist for Android).
- Source code (partial): https://github.com/rweichler/EQE
- o **Review**: http://www.idownloadblog.com/2017/12/16/eqe-review/
- More info: https://eqe.fm/about

Cylinder

Animation platform

iOS, Cydia Substrate, Lua, C, Objective-C, Core Animation

Released Feb. 2014

- o Description: iOS framework (jailbreak required) that allows custom icon animations while swiping a page on the home screen. Animations come from user-made Lua scripts using a custom API I designed. Available on Cydia.
- Impact: 4.5 million cumulative downloads (the latest update has 1.2 million downloads). The Lua API facilitated the creation of about 50 custom "effects" by users. Cylinder is basically a de-facto tweak when it comes to jailbreaking, for example it's frequently used to demo WIP jailbreaks.
- Source code: https://github.com/rweichler/cylinder
- Review: http://www.idownloadblog.com/2014/03/30/cylinder-cydia/

**Equalizer**Everywhere

iOS, Cydia Substrate, Lua, C, C++, Objective-C, Core Audio

Released Jul. 2014

- System-wide graphic equalizer
  - o Description: System-wide 10-band graphic equalizer for iOS (jailbreak required). Available on Cydia.
  - Impact: This was the only system-wide equalizer for iOS until I made EQE, which essentially cannibalized this. Had about 100,000 users.
  - Review: http://www.idownloadblog.com/2014/07/25/equalizeeverywhere/

# Work Experience

Quixey Software Engineer (Intern) Palo Alto, CA

Jan. - July 2012

• Quixey Challenge: Worked on a team developing a web-based recruiting platform, using the Meteor framework.

### Personal Projects

- Lucy: Lua / Objective-C bridge and runtime analysis/debugging tool for iOS. https://github.com/rweichler/lucy
- jijj: GUI package manager for iOS (based on dpkg, similar to Cydia). https://github.com/rweichler/jijj
- Aite: Build system (like GNU Make). https://github.com/rweichler/aite
- Sunnyveil: 3D game engine written in C and LuaJIT. Has Lua bindings to Bullet (physics engine) and OpenGL.
- Wuigi: Open source Mario clone, in Java. https://github.com/rweichler/wuigi

#### Skills (Non-exhaustive)

- iOS (primary focus): Core Audio, reverse engineering, runtime modification development, app development, toolchain development, Objective-C runtime, Objective-C / Lua interop, SQLite
- Other: nginx/OpenResty, PostgreSQL, Redis, C, Lua/LuaJIT, Python,

Davis, CA