# Reed Weichler

rweichler@gmail.com

https://github.com/rweichler

## EDUCATION

- **UC Davis**  Davis, CA
  *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.
  - **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
  - **Review**: http://www.idownloadblog.com/2017/12/16/eqe-review/
  - **More info**: https://eqe.fm/about

- **Cylinder**  iOS, Cydia Substrate, Lua, C, Objective-C, Core Animation
  *Animation platform*  *Released Feb. 2014*
  - **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/

- **EqualizerEverywhere**  iOS, Cydia Substrate, Lua, C, C++, Objective-C, Core Audio
  *System-wide graphic equalizer*  *Released Jul. 2014*
  - **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**  Palo Alto, CA
  *Software Engineer (Intern)*  *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
- **jjjj**: GUI package manager for iOS (based on dpkg, similar to Cydia). https://github.com/rweichler/jjjj
- **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,