Jake Lipton

https://jakelipton.com   jake.garcia.lipton@gmail.com

■ Interests

Automation, silicon design/debug, systems programming, web development, reverse engineering, information security, audio/video processing.

■ Technical Skills

OS: Linux, Mac OS X, Android, iOS

Systems: C, ARM and AArch64 assembly, x86 assembly

Scripting: Bash, Tcl, Expect, Python, Ruby, AppleScript, Elisp, Perl

Web: Ruby, JavaScript, CoffeeScript, React, jQuery, PHP, HTML, CSS

General: Clojure, Java, Objective-C, Racket, OCaml, Matlab

Data: SQLite, MongoDB, Elasticsearch, PostgreSQL, RabbitMQ

Tools: Emacs, Make, AWK, LLDB, DTrace, Puppet, LaTeX

Version Control: Git, Perforce, Subversion, Bazaar

Protocols: JTAG, I2S, HDMI, SPDIF, UART, I2C, SPI, USB, PCIe, NVMe, DDR2

■ Education

Brown University – Providence, RI

Computer Engineering B.S.   **September 2007 - May 2011**

Data Structures & Algorithms, Software Engineering, Operating Systems, Computer Security, Multiprocessor Synchronization, Neural Modeling, Analog Circuit Design, Digital Circuit Design, Computer Architecture, Embedded & Real-Time Software, Embedded Microprocessor Systems Design, Communication Systems, Signal Processing

■ Experience

Apple, Inc. – Cupertino, CA

Silicon Validation Engineer   **August 2011 – Present**

System-on-Chip IP testing and validation in pre- and post-silicon environments; developing directed tests, test automation infrastructure, and silicon debug tools.

Brown University – Providence, RI

Undergraduate Engineering Teaching Assistant   **September 2010 – May 2011**

In-class TA for ENGN1630 "Digital Electronics Systems Design." Taught digital logic, circuit proto-typing, and hardware description languages. Held regular lab hours. Assisted students with designing and debugging circuits.

Undergraduate Computer Science Teaching Assistant   **January 2009 – December 2009**

In-class TA for CSCI0170/0180 "Computer Science: An Integrated Introduction." Taught functional and object-oriented programming, data structures, algorithms, analysis. Worked closely with professors to develop pair-programming labs and problem sets. Work included grading homeworks, interactive project grading sessions, holding weekly office hours, and running lab sections.

Hudson River Sloop Clearwater – Beacon, NY

Web Developer and Designer   **June 2008 – August 2008**

Frontend and backend redesign for the non-profit organization. Integrated Salesforce member data-base with e-commerce solution using PayPal and Google Checkout APIs. HTML, CSS, PHP, MySQL, Joomla.

■ Projects

Tabs.fm – Social Sheet Music, 2011

Last.fm-powered guitar tab suggestions; Clojure, HTML5, CSS3, jQuery.

Netlets – Network-Enabled Power Outlets, 2011

Remote power monitoring and outlet switching; ARMv7 SoC, Linux, Busybox, XMPP, Clojure, Google AppEngine.

■ Awards

Sigma Xi – The Scientific Research Society, 2011

Tau Beta Pi – The Engineering Honor Society, 2010

Android Market Device Seeding Program – Top Android Market Developer, 2009