**EDUCATION** 

# Massachusetts Institute of Technology, Cambridge, MA

Master of Engineering in Computer Science

Bachelor's Degree in Computer Science and Engineering

• Overall GPA: 5.0/5.0

September 2012 – June 2013 September 2008 – June 2012

# Work EXPERIENCE

# **Google – Software Engineering Intern**

June – August 2012

Developed a system to detect specialized vocabulary used in books, and provide definitions for them by extracting them from the book text.

# Google - Software Engineering Intern

June – August 2011

Developed a model which would predict how helpful a given user review on the Android Marketplace is. In user tests I conducted in several languages, the review ordering produced by this algorithm was preferred over the existing one, and is thus currently being used on the site.

# Microsoft Corporation – Software Development Engineer Intern

June – August 2010

Designed and implemented the Intellisense API, refactoring options, and Visual Studio code completion plugin for a new programming language which is under development by the Technical Computing group.

#### RESEARCH

# MIT CSAIL - User Interface Design Group

September 2011 – present

Developing a crowd-sourcing system to assist foreign language students in vocabulary acquisition while simultaneously generating annotated subtitles for videos. (MEng thesis)

Developed a software internationalization tool which associates the translatable strings in an application with screenshots in which they appear (using OCR). By presenting a screenshot highlighting how the string is being used, this additional context allows translators to make more accurate translations.

http://groups.csail.mit.edu/uid/other-pubs/chi2012-screenshots-for-translation-context.pdf

# MIT Media Lab – Affective Computing Group

February – December 2009

Trained a Bayesian network classifier to determine mental states from a still image or from a video stream based on displacements of facial features, and used it in a demo application which performed mental state classification in real-time from a webcam source. Also created a library to allow scripts for the Praat acoustic analysis application to be programatically used with real-time, continuous streams of speech.

## **OPEN-SOURCE PROJECTS**

### UNetbootin (LiveUSB creator)

January 2007 – present

Created UNetbootin, a cross-platform utility to create bootable USB flash drives or perform network installations for a wide variety (50+) of Linux distributions. This work has been accepted into the official package repositories for Debian, Ubuntu, Fedora, openSUSE, Gentoo, and other major distributions. 20 million downloads, http://unetbootin.sourceforge.net/

# FFmpeg (Video transcoding library)

May – August 2009

Designed and implemented a playlist and concatenation API, parsers for several playlist formats, and a transitional interface for existing applications, for the FFmpeg audio and video transcoder and library. This work was done as part of Google's Summer of Code program.

#### Wubi (Windows-based Ubuntu Installer)

November 2006 – August 2007

Designed and implemented the early versions of the Windows-based Ubuntu Installer, which allows Windows users to safely install Ubuntu Linux without repartitioning their hard drives. Formerly an independent project, this work is now part of Ubuntu.

Ships on the official Ubuntu CD, http://wubi.sourceforge.net/

#### TEACHING

## Co-Instructor for Introduction to C++ IAP Course at MIT

January 2011

Taught an introductory C++ programming course for MIT students, giving lectures, reviewing assignments, and assisting students with software labs. Also helped archive the course on MIT's OpenCourseWare site: http://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-096-introduction-to-c-january-iap-2011

DISTINCTIONS

1<sup>st</sup> place, CHI 2012 (ACM Conference on Human Factors in Computing Systems) Student Research Competition 1<sup>st</sup> place, Maslab 2010 (an autonomous robotics competition at MIT)