

# Michael L. Rivera

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## EDUCATION

**Carnegie Mellon University, School of Computer Science** Sep 2015 - Present  
Ph.D. in Human-Computer Interaction  
Advisor: Scott Hudson

**University of Pennsylvania, School of Engineering & Applied Science** Sep 2009 - May 2014  
M.S.E. in Computer Graphics and Game Technology, GPA: 3.94 / 4.00  
B.S.E. in Digital Media Design, GPA: 3.54 / 4.00  
Advisor: Norman Badler

## PROFESSIONAL EXPERIENCE

**Facebook**, Software Engineer, New York, NY Jul 2014 - Aug 2015  
iOS and Android Product Engineer on the Places Team.

**Facebook**, Software Engineer Intern, Menlo Park, CA May 2013 - Aug 2013  
Android Engineer on the Facebook Home Team.

**LinkedIn**, Software Engineer Intern, Mountain View, CA May 2012 - Aug 2012  
iOS and Mobile Web Engineer for the Mobile Team.

## INVITED PRESENTATIONS

**University of Pennsylvania**, Penn-Interdisciplinary Talks, Philadelphia, PA Apr 2014  
*Tracheal Aire – a step towards patient-specific medical instruments*

**Society for Technology in Anesthesia**, Engineering Challenge 2014, Orlando, FL Jan 2014  
*Tracheal Aire: Patient-specific 3D Printable Williams Airway Intubators*

**University of Maryland, Baltimore County**, McNair Scholars Conference, Baltimore, MD Sept 2013  
*Project PAALM: Phalangeal Angle Approximation through the Leap Motion Controller*

**University of Pennsylvania**, Big Think Innovation Conference, Philadelphia, PA Mar 2013  
*Hacking New Frontiers: 3D Gesture Recognition*

## SELECTED PROJECTS

**Tracheal Aire**, 3D Printable Patient-specific Williams Airway Intubators Jan 2014  
Allows physicians to use measurements taken from a CAT scan to generate a customized airway intubator for a particular patient. *Society for Technology in Anesthesia 2014 Engineering Challenge, 1st Place.*

<b>Project PAALM</b> , Leap Motion Controller and Autodesk Maya Plugin Supports real-time animation in Maya by quickly approximating the phalangeal joint angles of a user's hand gestures.	May 2013
<b>Phase Change</b> , Collaborative Sound Creation & Visualization Allows users to create, layer, and shape 30-second sound recordings in an online branch-based versioning system.	Apr 2013
<b>Brobots</b> , Collaborative Gesture-Controlled Robot Permits remote users to control different aspects of the robot's functionality using gestures detected through the Leap Motion Controller.	Feb 2013
<b>Social Sign</b> , Multi-user American Sign Language Translator Detects gestures using the Leap Motion Controller and communicates them as text and images in an online chat room.	Jan 2013

## TEACHING EXPERIENCE

<b>Teaching Assistant</b> , University of Pennsylvania, Philadelphia, PA Digital Media Design Capstone Project Course (CIS-497) Introduction to Java Programming (CIS-110) Software Design and Engineering (CIS-350)	Fall 2013, Spring 2014 Fall 2013 Spring 2013
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## TECHNICAL SKILLS

**Programming Languages** Java, Javascript, Python, Objective-C, C++, C  
**Development Frameworks** iOS, Android, Arduino, Node.js, Flask, Backbone, JQuery, Qt, OpenGL  
**Fabrication** 3D Modeling, 3D Printing (FDM)

## AWARDS AND HONORS

<b>DreamIt Health Open Canvas Accelerator</b> , <i>Finalist</i>	2014
<b>Society for Technology in Anesthesia 2014 Engineering Challenge</b> , <i>1st Place</i>	2014
<b>Penn Interdisciplinary Talks</b> , <i>Finalist</i>	2014
<b>PennHacks Hardware Hackathon</b> , <i>3rd Place (of 40 teams)</i>	2013
<b>LinkedIn Company Hackday</b> , <i>1st Place</i>	2012
<b>University College London</b> , <i>Affiliate Computer Science Student</i>	2012
<b>PennApps Hackathon 2012</b> , <i>Best Use of the Tumblr API sponsored by Tumblr</i>	2012

## PRESS COVERAGE

<b>MedCity News</b> , "Pediatric hospital physicians form 3D printing 'think tank'"	Feb 2014
<b>MAKE Magazine</b> , "Hacking on the Frontier of Gestural Input"	Feb 2012

## REFERENCES

**Norman I. Badler**, Professor of Computer Science, University of Pennsylvania  
**Justin Moore**, Engineering Manager, Facebook