

Ying Yin

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<https://github.com/uShadow>

WORK AND RESEARCH EXPERIENCE

2004 – Present **Google Inc.** **Cambridge, MA**
Software Engineer working on YouTube live streaming platform and video infrastructure.

2008 - 2014 **MIT Computer Science and AI Lab** **Cambridge, MA**
Research assistant, worked on natural human computer interaction with different modalities, such as gesture and speech; applying machine learning and computer vision techniques in HCI.
Platforms: Linux, Windows; programming languages: Java, C++, C#, MATLAB; sensor: Kinect

Jun - Aug, 12 **Google Inc.** **Mountain View, CA**
Software Engineer Intern, worked on advanced smart phone touch screen keyboards that can adapt to users' changing typing postures. A patent was filed based on my work.
Platforms: Linux, Android; programming languages: C++, R, Ruby

Jul - Sep, 07 **Microsoft Corporation** **Redmond, WA**
Software Design Engineer Intern, developed a tool for searching and browsing through PDF documents more efficiently. *Platform: Windows XP; programming language: C#*

EDUCATION

2010 - 2014 **Massachusetts Institute of Technology** **Cambridge, MA**
Ph.D. in Computer Science GPA: 5.0/5.0
Advisor: Professor Randall Davis
Thesis: *Real-time Continuous Gesture Recognition for Natural Multimodal Interaction*

2008 - 2010 **Massachusetts Institute of Technology** **Cambridge, MA**
Master of Science in Computer Science GPA: 5.0/5.0
Thesis: *Toward an Intelligent Multimodal Interface for Natural Interaction*
Main courses: Machine Learning, Machine Vision, Distributed Systems, and Advanced Algorithms

2004 - 2008 **University of British Columbia** **Vancouver, Canada**
Bachelor of Applied Science in Computer Engineering GPA: 96%
With Distinction, Minor in Commerce

SELECTED PUBLICATIONS

Yin, Y., and Davis, R.. **Gesture Spotting and Recognition Using Saliency Detection and Concatenated Hidden Markov Models.** Proceedings of ICMI. 2013.

Yin, Y., Ouyang, T., Partridge, K. and Zhai, S.. **Making Touchscreen Keyboards Adaptive to Keys, Hand Postures, and Individuals.** Proceedings of CHI. 2013.

Yin, Y. and Davis, R.. **Toward Natural Interaction in the Real World: Real-time Gesture Recognition.** Proceedings of the International Conference on Multimodal Interfaces (ICMI). 2010.

SELECTED PROJECTS

Jan, 13 **Android App for MIT Japanese Language Course - Lango**

Developed an Android app that allows students to do language exercises more easily. Users can listen to, record and replay audio exercises on the phone conveniently. In a team of 2, won the 4th place in the MIT Mobile App Competition.

Jan, 12 **Online Machine Learning Tool - ProtoM**

Led a team of 2 other MIT students, and built a web application that allows people to learn and apply machine learning through interactive courses. Won the High Honorable Mention for the most advanced functionality in the MIT Web Programming Competition. Framework used: Ruby on Rails; machine learning backend tool: WEKA.

Feb - Mar, 11 **Chrome Extension - Clutter**

Chrome extension that allows users to view multiple websites in the same tab. Developed the interface using HTML5 and CSS3. Won the top prize at a Chrome hackathon.

Jan - Apr, 08 **Computer Game - Scorched Earth 3D**

3D version of the computer game Scorched Earth built from scratch using OpenGL API. Won the top prize as a class project with a team of 4 people. Worked on physics simulation.

AWARDS AND SCHOLARSHIPS

10th place in MIT Battlecode Programming Competition: 2011, team of 4 people

Governor-General's Silver Medal in Science: top of Faculty of Applied Science Class 2008

International Leader of Tomorrow Award: UBC major scholarship for international students

General Motors of Canada Scholarship in Electrical and Computer Engineering: 2007

7th Place in ACM Pacific Northwest Programming Contest: 2006, team of three people

John Young Memorial Prize in Economics: 2004

Gold Medal in Singapore National Physics Olympiad: 2002

Bronze Medal in Singapore National Chemistry Olympiad: 2002

Silver Medal in Singapore National Olympiad in Informatics: 2001

Scholarship for Pre-University Study in Singapore: 2000 - 2004

EXTRACURRICULAR ACTIVITIES

Jan, 11 **Organizer of IAP 6.470 Web Programming Competition, MIT**

Organized the course and the competition with more than 170 students enrolled.

2010 - Present **President, Isshinryu Karate-do, MIT**

Facilitated the club activities, and organized promotional events for the club.

Jan - Dec, 09 **Treasurer, CSAIL Student Committee, MIT**

Organized social activities (CSAIL Olympics, Halloween party etc.) for students.

COMPUTER SKILLS

Programming Languages: C (5 years), C++ (9 years), C# (4 year), Java (7 years), MATLAB (7 years), Python (1.5 years), Javascript / CoffeeScript (3 years), Ruby (3 years), SQL (1 year)

Frameworks & Tools: Eclipse, Visual Studio, Git, Ruby on Rails (2 years)

Hardware Description Language: VHDL (1.5 years)