

# Yihong Chen

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## Education

2013

**Computer Science**, *University at Buffalo*, PhD, **GPA: 3.69**.

2009–2011

**Software Engineering**, *Beijing Institute of Technology*, Master, **GPA: 3.29**.

2004–2008

**Electrical Engineering and Automation**, *North China Institute of Science and Technology*, Bachelor, **GPA: 3.00**.

## Project & Research Experience

2015

**Structuring Uncertainty Using the [maybe](#) Statement**, *Leader*.

- Introduce [maybe syntax](#) to enable uncertainty programming for mobile system
- Implement [all components](#): Custom Java Compiler, Gradle Plugin, Android Studio IDE Plugin, Backend based on Meteor, Maybe Android Library, Real-time Machine Learning

2014

**Flexible and Effective Smartphone Energy Management: [Jouler](#)**, *Contributor*.

- Introduce a policy framework enabling effective and flexible smartphone energy management
- Add a system service in Android platform that provides several energy control mechanisms
- Develop Android app to provide different energy manage policies

2014

**Project of [Introduction to Operating Systems](#)**, *Implement large part of a POSIX-compliant kernel*.

- Implement Synchronization Primitives, System Calls, and Virtual Memory Management

2011

**Studying the Topic of Extracting Attributes and Their Values of Domain Objects**, *Research Proposal for Master degree*.

- Use NLP and semi-supervised Machine Learning to extract attribute or attribute value from encyclopedia websites

2010

**Theory and Method to Ontology Learning Field about Chinese Text**, *Cooperate with team and maintain old projects*, Funded by National Natural Science Foundation of China.

- Tag and standardize time expressions from Chinese free text
- Design and implement a web platform to demonstrate all subprojects (written in different languages)

## Programming Skills

Android	<ul style="list-style-type: none"><li>– Modify AOSP code: <a href="#">jouler</a>, <a href="#">maybe</a></li><li>– Customize gradle build system</li><li>– Develop plugin for Android Studio</li><li>– Develop Android Apps in <a href="#">PhoneLab</a> project for research purpose</li></ul>	Java	<ul style="list-style-type: none"><li>– Wrote more than 20,000 lines of Java code, includes server side, Hadoop, Android platform/client</li><li>– Customized <a href="#">Java compiler</a></li><li>– Well understand Garbage Collection in Java &amp; Dalvik</li></ul>
JavaScript	<ul style="list-style-type: none"><li>– Familiar with Node.js &amp; Meteor, implement <a href="#">Maybe Backend</a>: <a href="http://maybe.xcv58.me">maybe.xcv58.me</a></li><li>– Meteor package: <a href="#">xcv58:collection-api</a></li><li>– Wrote Bunch of <a href="#">Chrome Extensions</a> and <a href="#">Atom Packages</a></li></ul>	Backend	<ul style="list-style-type: none"><li>– Well understand RESTful API Design</li><li>– Familiar with Linux servers: <a href="#">nginx</a>, Apache</li><li>– Knowledge of Different Databases: MongoDB, MySQL</li></ul>
C	Implement all <a href="#">Harvard OS/161</a> assignments, able to modify Linux Kernel	Python	Familiar with matplotlib & Plotly, use python to process log and plot figures
Lisp	Wrote Emacs codes for <a href="#">my Emacs config</a>	Shell	tmux, sed, grep, awk, etc. in daily usage <a href="#">my github Shell repository</a>
Other	<ul style="list-style-type: none"><li>Git, in daily usage</li><li>Groovy, in custom gradle plugin</li><li>Matlab, Machine Learning projects</li><li>Lua, wrote plugins for Google Pinyin</li><li>PHP, customize Wordpress</li><li>L<sup>A</sup>T<sub>E</sub>X, write papers/documentations</li></ul>	Regular Expression	Use regular expression fluently in various of languages
		Editors	<a href="#">Vim</a> and <a href="#">Emacs</a> in daily usage Keep a glimpse of Sublime and Atom