

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