# 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 componments: 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 –
- Modify AOSP code: jouler, maybe
- Customize gradle build system
- Develop plugin for Android Studio
- Develop Android Apps in PhoneLab project for research purpose

JavaScript –
- Familiar with Node.js & Meteor implement Maybe Backend Meteor package: xcv58:collection-api
- Wrote Bunch of Chrome Extensions and Atom Packages

C Implement all Havard OS/161 assignments, able to modify Linux Kernel

Lisp Wrote Elisp codes for my Emacs config

Other Git, in daily usage
Groovy, in custom gradle plugin
Matlab, Machine Learning projects

Lua, wrote plugins for Goolge Pinyin
PHP, customize Wordpress
LaTeX, write papers/documentations

Java –
- 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

Backend –
- Well understand RESTful API Design
- Familiar with Linux servers: nginx, Apache
- Knowledge of Different Databases: MongoDB, MySQL

Python Familiar with matplotlib & Plotly, use python to process log and plot figures

Shell tmux, sed, grep, awk, etc. in daily usage
my github Shell repository

Regular Expression Use regular expression fluently in various of languages

Editors Vim and Emacs in daily usage
Keep a glimpse of Sublime and Atom