

# Yihong Chen

(918) 516 8964  
i@xcv58.com  
xcv58.me  
xcv58



## 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**

- 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 Harvard OS/161 assignments, able to modify Linux Kernel

**Lisp** Wrote Emacs codes for my Emacs config

**Other**

- Git, in daily usage
- Groovy, in custom gradle plugin
- Matlab, Machine Learning projects
- Lua, wrote plugins for Google Pinyin
- PHP, customize Wordpress
- L<sup>A</sup>T<sub>E</sub>X, 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