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.

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: maybe.xcv58.me 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
try to move to Atom recently