Yihong Chen

2009 2011 2004 2008

Education

Computer Science, University at Buffalo, The State University of New York, PhD, GPA: 3.69.

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

Electrical Engineering and Automation, North China Institute of Science and Technology, Bachelor.

Project & Research Experience

Structuring Uncertainty Using the maybe Statement, Leader.

- Introduce maybe syntax to enable uncertainty programming for mobile system, implement all componments:
 - * Custom Java Compiler, translate maybe syntax to oridnary Java code and bytecode
 - \star Gradle Plugin, provide seamless experience for Android developers to use maybe syntax: demo video
 - ★ Web App, use Meteor to provide REST API and reactive web app
 - * Android Library, communicate with maybe backend and cache choices

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 management policies

Project of Introduction to Operating Systems, Implement large parts of a POSIX-compliant kernel.

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

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

Theory and Method to Ontology Learning Field about Chinese Text, Cooperate with team and maintain previous 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 Chrome Extensions and Atom Packages

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

Other • Git, in daily usage

- Use regular expression fluently in various languages
- Groovy, in custom gradle plugin
- Wrote Elisp codes for my Emacs config
- Matlab, Machine Learning projects

Java • Wrote more than 20,000 lines of Java code, includes server side, Hadoop, Android platform/client

- Customized Java compiler
- Proficiency in Garbage Collection of 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

Other • PHP, customize Wordpress

- Lua, wrote plugins for Goolge Pinyin
- tmux, sed, grep, awk, etc. in daily usage
- LATEX, write papers/documentations
- my github Shell repository
- Vim and Emacs in daily usage

2014

2010

2014