# Guoyao Xu

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# **OBJECTIVE**

A well trained and experienced mobile developer with hands-on experience. Ready to develop to be a system designer (this should be a mid/long term personal development goal) in a team environment.

## **EDUCATION**

- ➤ M.S. 09/2011—05/2013 Wayne State University *GPA*: 3. 8/4. 0
  - Master of Computer Science in Mobile and Internet SysTems Lab(MIST), Advisor: Dr. Weisong Shi
  - *Key courses*: Networking and Distributed System, Advanced Parallel and Cloud Computing, Real-time and Embedde System, Algorithm, Database Management, Data Mining, Web Technology.
- ► B.S. 09/2008—07/2011 XiDian University
  - Bachelor of Electronic & Information Engineering, China

# **BACKGROUND**

Two years' experience of Android development and Java development.

Published one Android app named *HERO* (<a href="http://engineering.wayne.edu/wsuwater/about/hero.php">http://engineering.wayne.edu/wsuwater/about/hero.php</a>)

Have a great experience of distributed system, big data and cloud computing.

# **EDUCATION PROJECT EXPERIENCE**

> 09/2011 - Present HERO Program---Home Emissions Read Out (energy conservation app)

*Program Description*: Design and develop an Android application, a web application and a WAMP server to monitor real time pollutant emission rates from power generation. The project goal is to help consumers shift the timing of their energy use to reduce air emissions.

## Responsibilities:

- One of the project leaders: as only designer and programmer, direct design and development.
- Develop an Android application named HERO using Java. Status: published to Google store.
- Design and develop a cloud server using PHP (MVC frame) and MySQL with WAMP model.
- Develop a web application using HTML5/CSS3 and JavaScript.
- Design and develop the connection interface between the Android app, the web application and the server.

#### Additional:

This android application uses Google map API, Location Manager API, Http connection API with JSON, XML processing with SAX and DOM.

## > 02/2012 - 04/2012 *NIH Program (Mobile Health)*

*Program Descriptions:* Developer of a system that can help nurses at the Detroit Medical Center (DMC) monitor, track and update a database of patient information in real-time.

# Responsibilities:

- Discuss and design the whole system with the engineer of DMC.
- Design and develop the server connected with the patients' information database using Ruby on Rails and Oracle SQL with the technical team.
- Design and develop the connection interface between the Android pad client and the server.

## > 10/2012 - Present Mynurse Program (Mobile Health)

*Program Descriptions:* Lead a health system to develop which helps users monitor their real-time heart song. *Responsibilities:* 

- Design and manufacture a heart song monitor hardware embedded a microphone, a single chip microcomputer, Bluetooth module.
- Design and develop an Android application which gets heart song data from the hardware through Bluetooth.
- Design the connection interface between the Mynurse Android app and Wellness Book cloud server.

#### Additional:

This android app uses Bluetooth API, MediaRecord API, AudioRecord streaming API, Http connection API.

## ► 01/2013 - 03/2013 Wellness Book Program (Mobile Health)

*Program Descriptions:* Lead a cloud system to develop which helps users record, monitor, update their daily health status.

# Responsibilities:

- Design and develop an Android application using Java. Status: soon to be published to the Google store.
- A cloud server design using PHP and MongoDB.
- Design the connection interface between the Android app and the server.

#### Additional:

This android application uses Camera API, MediaRecord API, AudioRecord streaming API, Zip API, Http connection API with JSON.

# WORK EXPERIENCE

## **Guangdong Electronics Research Institute**

China

► 06/2012 – 08/2012 Summer Intern, FlashMemo Project

Program Descriptions: Developer of cloud system which helps users manage routine activities.

## Responsibilities:

- Architecture design and develop.
- Design the connection interface with the technical team between different kinds of clients and the server.

# Civil and Environmental Engineering Dept., Wayne State Detroit, MI

U.S.

➤ 08/2012 – present *Graduate Research Assistant* 

## Research topics:

- Research about utilizing mobile technology, cloud computing, data mining, and other computer science technologies to study the energy consumption, water-energy nexus, air emissions and environment law impacts of electric generation problem.
- Combine computer science with energy conservation and environment protection topic especially on HERO project.

# **PROFESSIONAL SKILLS**

- Proficient with Java language, SQL, PHP, Python, Ruby on rails, HTML5/CSS3, JavaScript, XML, C language and Assembly language.
- ➤ Proficient with the Android programming, Android SDK, J2EE technique, WAMP/LAMP server programming, Database development(Oracle SQL, MySQL, MongoDB), Hadoop and MapReduce programming for cloud computing, JDBC programming, JSP, Java Servlets, Linux and Unix socket programming, MPI programming for parallel computing, Bluetooth programming(software layer).
- Master software: Eclipse, Visual Studio, X-code, Weka, MATLAB.