

# YIMING PENG

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## EDUCATION

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<b>University of Massachusetts Amherst</b> , Amherst, MA	Sept. 2013 - Dec. 2015(Expected)
M.S. in Computer Engineering	
Overall GPA: Available upon request	
<b>Wuhan University of Technology</b> , Wuhan, China	Sept. 2009 - Jun. 2013
B.S. in Communication Engineering	
Minor in Statistics	
Overall GPA: Available upon request	

## WORK EXPERIENCE

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<b>5G Mobile Evolution Lab</b> , <i>Independent Study Researcher</i> , Amherst, MA	Dec. 2013 - May. 2014
<ul style="list-style-type: none"><li>Resolved the issue of the communication difficulty in emergency situations without Internet using wireless technology.</li><li>Developed an Android application that enables the emergency responders to establish an ad hoc network among mobile devices of the emergency system.</li></ul>	
<b>Wuhan Engineering Automation Co., Ltd.</b> , <i>Intern</i> , Wuhan, China	Jun. 2013 - Sept. 2012
<ul style="list-style-type: none"><li>Worked at the R &amp; D team.</li></ul>	
<b>Wuhan University of Technology</b> , <i>Teaching Assistant</i> , Wuhan, China	Sept. 2011 - Jun. 2013
<ul style="list-style-type: none"><li>Provided professional instruction to assist students in their academic course's homework and project.</li></ul>	
<b>Wuhan University of Technology</b> , <i>Research Assistant</i> , Wuhan, China	Jul. 2011 - Aug. 2012
<ul style="list-style-type: none"><li>Worked at Image Processing Group and Xilinx-WUT Joint Lab.</li></ul>	
<b>Luculent Software Co., Ltd.</b> , <i>Intern</i> , Nanjing, China	Jun. 2011 - Aug. 2011
<ul style="list-style-type: none"><li>Resolved the issue of the devices deploy for the monitoring on the combustible poisonous gas in urban subterranean room.</li></ul>	

## RESEARCH AND PROJECT EXPERIENCE

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<b>RunTracker</b> , Independent Course Work, <i>Big Nerd Ranch</i>	Summer 2015
<ul style="list-style-type: none"><li>Developed an Android application that works with a devices GPS to record and display the users travels.</li><li>Implemented local databases to store data about runs and their locations using SQLite.</li><li>Utilized Loader API to keep database work on a background thread for a smooth user experience.</li><li>Utilized Google Map API to display a map showing the track of the users run and markers of the start and end.</li></ul>	
<b>Operating System Project - System Software Design</b> , <i>UMass Amherst</i>	Spring 2015
<ul style="list-style-type: none"><li>Assignment 1: Threads and Monitors, Assignment 2: Virtual Memory Manager, Assignment 3: Stack Smashing.</li></ul>	
<b>Natural Language Processing Project - NER Tagging for Twitter</b> , <i>UMass Amherst</i>	Fall 2014
<ul style="list-style-type: none"><li>Constructed an NER(Name Entity Recognition) tagger for Twitter to recognize spans of text that correspond to a name in tokenized tweets.</li><li>Utilized the CRFsuite software package and the IOB notation to do model training and label pre- dicting on the corpus at Kaggle.com.</li></ul>	

- Developed a feature extractor to extract the characteristics of words and an evaluator to calculate the correct ratio of predictions statistically using Python.

**Network Security Project - Security in Emergency Situations, *UMass Amherst*** Fall 2013

- Developed a set of mechanisms to protect the emergency response system, including access control, user authority allocation, communication encryption.
- Designed the user interface of the client app on Android platform.
- Implemented the functionality of the client app, including POIs(Points of Interest) post and display, Kerberos protocol in transmit process, MD5 Salt algorithm in login system.

**Computer Network Project - Urban Search and Rescue, *UMass Amherst*** Fall 2013

- Developed a disaster management system to assist emergency responders to search and rescue in emergency situations.

**FPGA based Electric Vehicle Charging Pile - The 5th Annual National University Student Social Practice and Science Contest on Energy Saving & Emission Reduction, *Wuhan University of Technology*** Nov. 2011 - May. 2012

- As the vice leader of the group, responsible for the program planning and the pre-function design and simulation.

**Signal Processing Experiment - Signal Transmission & Processing System based on FPGA, *Wuhan University of Technology*** Sept. 2011 - Aug. 2012

- Implemented MSK modulation communication system based on Turbo codes using Simulink.

**Image Processing Project - Video Capture & Image Processing System based on Animal Behavior Monitoring, *Wuhan University of Technology*** Jul. 2011 - Dec. 2011

- Implemented face recognition and target recognition for multi-frame image using Matlab.
- Utilized Da Vinci System to do test.

## EXTRACURRICULAR ACTIVITIES

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**W.E.B. Du Bois Library Learning Resource Center, *Chinese Tutor*, Amherst, MA** Feb. 2015

- Provided professional instruction to assist students in learning Chinese language.

**Outdoor Test of DIORAMMA, *Active Volunteer*, Amherst, MA** Oct. 2013

- Participated the outdoor test of a project research, titled "Mass Casualty Management System(DIORAMA-II)", investigated by Professor Aura Ganz, and sponsored by NIH(National Institutes of Health)

**Guinness World Record for Fresh Fruit Salad, *Active Volunteer*, Amherst, MA** Sept. 2013

- UMass Dining created the World's Largest Fresh Fruit Salad at 15,000 pounds and set the new record as recognized by Guinness World Records.
- Participated in World's Largest Fresh Fruit Salad cooking on Labor Day.

**FiberHome Technologies Group Tech Talk, *Active Member*, Wuhan, China** May. 2012

- Selected as student representative to Optics Valley Tech Talk and visited FiberHome Technologies Group.

**Nandasoft Talent Centre Information Technology Outsourcing(ITO) Skills Training, *Active Member*, Nanjing, China** Aug. 2011

- Actively took part in training lessons on ITO industry.

**Summer Social Practice**, *Active Member*, Nanjing, China

Jul. 2011

- Selected as student representative to a one-month Summer Social Practice, visited Ericsson Panda Communication Co., Ltd. and several start-ups.
- Actively took part in general meetings, tech talks and networking events.

**Youth Website(Link: [www.wutyouth.net](http://www.wutyouth.net))**, *Active Member*, Wuhan, China

Sept. 2009 - Mar. 2010

- Responsible for the website news management.

## RELEVANT COURSEWORK

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University of Massachusetts Amherst

- ECE671 : Computer Networks
- ECE644 : Trustworthy Computing
- ECE665 : Algorithms
- CS683 : Artificial Intelligence
- CS585 : Introduction to Natural Language Processing
- ECE603 : Probability & Random Process
- ECE570 : System Software Design

Wuhan University of Technology, School of Information Engineering

- Information Theory & Coding
- Signal & System
- Communication Principle
- Electromagnetic Field & Electromagnetic Wave
- Analogous Electronic Technology
- Digital Signal Processing
- High-frequency Electronic Circuit

Wuhan University of Technology, School of Science

- Mathematical Analysis
- Higher Algebra and Geometry

## TECHNICAL SKILLS AND QUALIFICATIONS

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<b>Computer Languages</b>	Java, C/C++, Python; R, Matlab; HTML, CSS; XML
<b>Software Develop</b>	Eclipse(ADT, PyDev), Android Studio, GDB; Git; VirtualBox
<b>Circuit Simulation</b>	Proteus, Multisim, Protel, Keil
<b>Operating System</b>	Android, Ubuntu, Windows

## HONORS AND CERTIFICATIONS

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- 2011 Top Tier Fellowship Student of Wuhan University of Technology Oct. 2012
- 2011 Excellent Student Cadre of Wuhan University of Technology Oct. 2012
- Third Prize in the 11th "Innovation Cup" Student Tech Festival from WUT Dec. 2011
- Third Prize in Summer Social Practice from WUT Nov. 2011
- Third Prize in the 4th Electronic Design Contest from Electric & Electronic Innovation Center Jun. 2011
- Certification of C Programming from National Education Examinations Authority(NEEA) Mar. 2011
- Second Prize in the 9th Science Festival from WUT School of Science Apr. 2010