YIMING PENG

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EDUCATION

University of Massachusetts, Amherst, Amherst, MA — Sept. 2013 - Dec. 2015(Expected)
M.S. in **Computer Engineering** — Overall GPA: Available upon request
Relevant Courses: Algorithms, Computer Networks, System Software Design

Wuhan University of Technology, Wuhan, China — Sept. 2009 - Jun. 2013
B.S. in **Communication Engineering** — Overall GPA: Available upon request
Relevant Courses: Data Structure, Fundamentals of Computer Programming

EXPERTISE

Programming	Java(Proficient), Python, HTML, CSS, XML, C, C++
Software	Eclipse(ADT, PyDev), Android Studio, VirtualBox, GDB, Matlab, Git
Database	SQLite, PostgreSQL
Operating System	Android, Linux(Ubuntu)

WORK EXPERIENCE

5G Mobile Evolution Lab — Dec. 2013 - May. 2014
Independent Study — *Amherst, MA*

· Resolved the issue of the communication difficulty in emergency situations without Internet using Bluetooth.
· Developed an Android application that enables the emergency responders to establish an ad hoc network among mobile devices of the emergency system.

Luculent Software Co., Ltd. — Jun. 2011 - Aug. 2011
Internship — *Nanjing, China*

· Resolved the issue of the devices deploy for the monitoring on the combustible poisonous gas in urban subterranean room.
· Implemented a web crawler in Java to collect the gas leak reports data of the last decade in Nanjing city.

PROJECT EXPERIENCE

RunTracker — Apr. 2015 - Jun. 2015

· Developed an Android application that works with a device's GPS to record and display the user's travels.
· Implemented local databases to store data about runs and their locations using **SQLite**.
· Utilized Loader API to keep database work on a background thread for a smooth user experience.
· Utilized Google Map API to display a map showing the track of the user's run and markers of the start and end.

NER Tagging for Twitter — Sept. 2014 - Dec. 2014
Course Project: CS 585 Natural Language Processing — *UMass Amherst*

· Constructed an NER(Name Entity Recognition) tagger for Twitter to recognize spans of text that correspond to a name in tokenized tweets.
· Implemented a feature extractor in Python to extract the characteristics of words, including lexical, character affix, shape features, and positional offset versions.
· Utilized the **CRFsuite** software package and **the IOB notation** to train a model on the training corpus and make predictions on the development corpus.

· Designed a Python script to evaluate the predicted tags against the gold standard tags of the development corpus based on **F-score**.
· Optimized F-score from 0.036 to **0.475** for the previous development corpus, **0.362** for the unlabeled new tweets on Kaggle.com.

Security in Emergency Situations Sept. 2013 - Dec. 2013
Course Project: ECE 644 Trustworthy Computing *UMass Amherst*

· 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.