YIMING PENG

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PROFILE

Motivated computer engineering student with broad skills and experiences in software development. Strong understanding and experience with object-oriented programming and system design. Proficient in data structures and algorithms.

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

Languages	Proficient in Java Experienced with Python, HTML, CSS, XML, C, C++
Tools	Eclipse(ADT, PyDev), Android Studio, GitHub, VirtualBox, Matlab
Operating Systems	Android, Linux(Ubuntu)

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.

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.