Shuowen Wei

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EDUCATION

Wake Forest University **Winston-Salem, NC**

M.S., Computer Science, full scholarship, GPA: 3.89/4.00 08/2013 - 05/2014

M.A., Mathematics, full scholarship, GPA: 3.82/4.00 08/2011 - 08/2013

- *Specialization*: OOP programming, Algorithms, and Data Mining
- *Courses*: Object Oriented Software Engineering, Theory of Algorithms, Operating System, Big Data
- *Membership*: Upsilon Pi Epsilon, the International Honor Society for the Computing and Information Disciplines

Wuhan University **Wuhan, Hubei Province, China**

B.S., Applied Mathematics, GPA: 3.52/4.00 09/2007 - 06/2011

- *Award*: Honorable Mention (top 30%) in COMAP Mathematical Contest in Modeling against over 1,000 teams

TECHNICAL SKILLS

- Programming: Java/Android, SQL, C/C++, Python, PHP/HTML, MapReduce, Matlab, R, VB, SAS
- Platforms: Unix/Linux/VM, Oracle Server Database, Hadoop, Windows
- Tools: Version Control/git, Vim, Eclipse, SCRUM, Latex, Tableau

PROFESSIONAL EXPERIENCE

Medical Informatics Analyst Intern, Wake Forest Baptist Health, Winston-Salem, NC 05/2013 - 08/2013

- Implemented models for automated inference of patient problems from structured data in electronic medical records
- Generated a 10-page report of the models for further identification using SQL on Oracle Developer
- Clustered over 15,000 ICD9 (International Statistical Classification of Diseases) codes into 800 bigger categories
- Created detailed documentation for the two projects and instructions of using the projects' results for future research

Data Analyst Intern, Wake Forest Baptist Health, Winston-Salem, NC 05/2012 - 08/2012

- Analyzed the characterization of over 810 million clinic data records using Oracle SQL Developer
- Visualized the results in Tableau, generated a 83-page report and delivered to hospital leaders and project directors
- Contributed to build the database warehouse with reliability analysis on the product database

Research Assistant in Statistics Field, Wake Forest University, Winston-Salem, NC 11/2011 - 08/2013

- Simulated digital ants' random walk based on different kinds of distribution of pheromone using Matlab
- Presented a real-time simulation movie in front of PNNL (Pacific Northwest National Laboratory) sponsors
- Built statistical models using Markov chain, solved 4 systems of linear equations and obtained closed-form formulas
- Finished a thesis addressing random walks on different one-dimensional grids, passed and to be published

PROJECTS

Mining in Tweets, Python & SQL, Linux/Virtual Machine

- Targeted NC & NYC people's tweets from Twitter using Twython API, and saved to local database using SQL
- Analyzed and computed NC & NYC people's moods based on more than 45,000 tweets of textual data using Python
- Visualized peoples' moods trend and presented the report in front of more than 35 audiences

D-stress Android App, Android Developer Tools (ADT), Eclipse IDE

- Developed an Android App for diabetes patients, helped monitor the patients' various indicators
- Used Scrum methodology and agile development, collaborated with communication major students in this project
- Applied regression models to predict the trend of patients' stress level and blood glucose level

Hospital Reservation System, MySQL & HTML/PHP, Linux

- Developed a complex, multi-table database for saving and retrieving appointment data, using MySQL
- Designed dynamic webpages to support appointment management, using HTML/PHP

Music Player, developed an applet to play MP3 files, supporting multithread tasks and real-time user input commands

TCP Client/Server, constructed communications between clients and servers using TCP Sockets, in C++ on Linux

Network Configuration, created hierarchical IP Networks using Linux routers on Linux

Linux Shell, wrote a mimic Terminal to execute Linux commands input, supporting redirections and pipes, using C++