Fengguo Tian

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EDUCATIONS

M.S. in **Computer Science and Eng**. <u>GPA</u>: **3.5/4.0.** 2015.5-2016.9. University at Buffalo, State University of New York

M.S. in **Electrical Engineering**   <u>GPA: 3.7/4.0.</u> 2013.8-2015.5. University at Buffalo, State University of New York

B.Eng. in Electrical Engineering   <u>GPA: 3.2/4.0. (80/100).</u>   2009.9-2013.7. Northwest A&F University, China

TECHNICAL SKILLS

Programming languages: **Java, Python**, **MySQL**, HTML, PHP, JavaScript, XML.
Frameworks & tools: **Hadoop, MVC (**RESTful**, Spring)**, **AWS, LAMP**, Apache Solr, Android Studio, Eclipse.

WORK EXPERIENCE

1. Software Engineer - Big Data (Java)   Xingxinda Equipment Sale Co.Ltd, China;   5 - 8, 2015

- o Built the website and implemented the 'Recommendation', 'Chat', 'web statistics' and 'manage' functions.

- o **Using Hadoop** to setup the **Distributed Data Center** and process high throughput query.

- o Built a KNN model using Java and MySQL by combining Web Statistics and Text Mining to find popular products with 500 MB JSON file and Significantly increased the hit rate of recommendations.

PROJECTS:

1. **Implemented** a **Dynamo-style distributed data storage** system in an **Android App** (**Java**); 2016

- o Implemented the Node Partitioning, Quorum Replication and Failure handling by using consistent hashing to route the P2P network to guarantee the CAP (Consistency, Availability, Partition tolerance).

- o Built the multithreaded network to synchronize distributed server by using TCP/UDP, Java Socket & Lock.

- o Implemented concurrent operations to guarantee Total-FIFO order, Atomicity, Consistency, Isolation, Durability.

2. **Built a** HealthCare **Data Mining and Recommendation** System (**Java**, **AWS**, MySQL)   2016

- o A data pipeline using **Twitte4J** and Nutch to crawl 2000 websites and 500 MB tweets,

- o A **KNN** predictive model built from the professional data model to classify the 1Million tweets.

- o **A recommendation system** as data center to rank and feed the personalized advises and news based on user's profiles and feedbacks.   After the training stage, the accuracy was improved to 65%.

3. **Built** a Social Media **Data Mining Search Engine** (**Java**, **AWS**, MySQL, Solr, PHP, JS)   2015

- o Implemented the Multilingual Retrieval, Content Tagging, Faceted Search, Cross-document analytics and Semantic search by applying the IR theory on the clawed 100 MB tweets.

- o Applied the **Alchemy API, gossipy data model and Apache Solr** to study a topic trend and verify the data model with dynamic graphics, the performance was excellent.

4. **Implemented Neural Networks** Handwritten Digits Classification (**Python**, **Machine Learning**).   2016
    - o Implemented a Multilayer Perceptron Neural Network and Logistic Regression, the accuracy was 99%.