# Fengguo Tian

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## EDUCATION & ACADEMIC EXPERIENCE

**M.S.** in **Computer Science and Engineering**, **University at Buffalo, State University of New York (SUNY)**
**GPA: 3.5/4.0.** **2015.5- 2016.9**
**M.S.** in **Electrical Engineering.** **University at Buffalo, State University of New York (SUNY)**
**GPA: 3.7/4.0.** **2013.8-2015.5**
**B.Eng.** in **Electrical Engineering and automation** **Northwest A&F University** — Xi'an, China.
Overall GPA: 80.08/100. **2009.9-2013.7**

- **Teacher Assistant** of Signal Analysis and Transform Methods, SUNY at Buffalo, NY. **2015,1-2015,5**
- **Teacher Assistant** of Power System Engineering, SUNY at Buffalo, NY. **2014,8-2014,12**

**Experience in**: Distributed System, Data Mining, Information retrieval and recommendation, Machine Learning;
**Courses List:** Algorithms Analysis & Design, Distributed Systems, Machine Learning, Information Retrieval, Advanced Information Retrieval, Computer Security, Software Engineering, Knowledge Bases & Ontologies.

## Internship and COURSE PROJECTS:

1. **Xingxinda Equipment Sale Co.Ltd** **Software Engineer-Intern** **China; 2015**
- Built the website system partly with HTML, PHP and MySQL (Include the UI and Background Code),
- Implemented 'Recommendation' and 'Chat' functions, 'web statistics' and 'manage' functions.
- 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 recommendation.

2. **Implemented a Dynamo-style distributed data storage system in an Android App. 2016**
- Implemented three main pieces of Dynamo: Partitioning, Quorum Replication and Failure handling based on consistent hashing to route P2P network to guarantee the CAP.
- Built the multithreaded network following TCP/UDP to support concurrent operations (insert/delete/query) and provide ACID and linearizability using java socket and synchronized method and concurrent data type.

3. **Built Personalized HealthCare Data Mining and Recommendation System (Java, AWS, MySQL) 2016**
- A data pipeline using **Twitte4J** and Nutch to crawl 2000 websites and 1Million tweets, a **KNN** machine learning predictive model to classify the 1Million tweets.
- **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 is improved to 65%!

4. **Built a Social Media Data Mining & Retrieval System (Java, AWS, MySQL, Solr, PHP, JS) 2015**
- Built a social media data mining website on AWS by implementing the Multilingual Retrieval, Content Tagging, Faceted Search, Cross-document analytics and Semantic search using the clawed 100 MB tweets.
- applied the **Alchemy API, gossipy data model and Apache Solr** to study a topic trend and verify the model with dynamic graphics.

5. **Implemented Neural Networks Handwritten Digits Classification (Python, Machine Learning).**
- Implemented a Multilayer Perceptron Neural Network and Logistic Regression to classify hand-written digit images by coding the NN theory and comparing with the result of the **SKLearn**, the accuracy is about 99%.

## TECHNICAL SKILLS

**Programming Skills**: Java, Python, C/C++, MySQL, Apache HTTP Server/Solr/Tomcat/Hadoop, Eclipse, AWS, HTML, PHP, JavaScript, Open Source, Android Studio, Linux/Unix, MATLAB, Sublime, IPython.