

# Fengguo Tian

fgtian4work@gmail.com

(716)-986-3166

Santa Clara, CA 95051

<https://www.linkedin.com/in/fengguo-tian-8994425a>

<https://frankyyt.github.io/>

## 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: 80/100 (3.2/4.0).

**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,      Tianjin, China;      2015**

- Built the website system partly with HTML, PHP and MySQL (the UI and Backend 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 HealthCare Data Mining and Recommendation System (Java, AWS, MySQL)      2016**

- A data pipeline using **Twitter4J** 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, XML.