TIANCHEN ZHONG

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EDUCATION

Carnegie Mellon University (CMU) Pittsburgh, PA

Master of Science in Information Networking, Information Networking Institute. Aug 2017 - May 2019

- **GPA**: 3.95/4.0
- **Related Courses**: Intro to Computer Systems, Cloud Computing, Distributed System, Search Engine, Artificial Intelligence, Practical Data Science

Southeast University (SEU) Nanjing, China

Bachelor of Engineering in Information Engineering Aug 2013 - June 2017

- **GPA**: 3.89/4.0 (91.64/100)
- **Related Courses**:Database System, Probability Statistics, Data Structures and Algorithm, Machine Learning, Computer Architecture, BigData, Computer Vision, Computer Network, Linear Algebra

SKILLS

- **Programming Languages**:Java, Python, SQL, R, C++, JavaScript
- **Tools/Platforms**: Linux, MySQL, HBase, Hadoop, Spark, Tensorflow, AWS, Azure, Google Cloud Platform, Docker, Kubernetes, Git, React

INTERNSHIP

Intel Asia-Pacific Research & Development Ltd. Shanghai, China

Software Development and Validation Intern July - Dec 2016

- Developed, maintained, and upgraded automated test scripts for LPSS driver testing code in **C#**.
- Built **Python** automation tool to accelerate average testing time by 20%.
- Collaborated with security team to develop a demo for proof of concept of secure container with **Node.js**, **HTML5** and **Docker** and helped team win the customer.

PROJECTS

Twitter Analytics Web Service Pittsburgh, PA

Team Project Feb. - May 2018

- Performed data Extracted, Transform and Load on 300 million (1TB) of raw tweet messages using **Spark**.
- Built a RESTful web service using Undertow framework, with **MySQL** and HBase as back-end on AWS.
- Applied load balancing strategy to handle 4 types of intensive read/write queries and achieved an average of 10,000 QPS (queries per second) in 2 hours live test, within a maximum cost of $0.85/h on AWS.
- Optimized web service by using thread pool, refining database schema, tuning parameters on backend database. Utilized **JMeter** as load generator to test our web service.

Lucene Based Search Engine Pittsburgh, PA

Course Project Jan. - May 2018

- Implemented a text-based search engine indexed with Lucene API on corpus of 500, 000 + documents from ClueWeb09 dataset in **Java**
- Developed a custom search engine with diversification, query expansion and learning to rank capability, supporting retrieval models including Ranked Boolean, BM25, and language statistic model like Indri.
- Evaluated the models developed by varying parameter values, analyzed trends, ambiguities discovered from the conducted experiments

University Chatbot Nanjing, China

Team leader May - July 2017

- Designed a chatbot to answer questions related to my university via Microsoft Bot Framework in **C#**.
- Developed a **Python** web crawler to extract information from websites and saved them in **SQL server**.
- Implemented natural language processing to analyse key words in the question improved answers correctness, deployed the service on **Azure**, achieving top 32 out of 1000 in Beauty of Programming competition.