

Taiyuan Zhang

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Personal website: <http://firstprayer.github.io/>

Education

Tsinghua University, Beijing, China

09/2010 – 07/2014 (Expected)

- Bachelor of Computer Software GPA 89.42 (Rank 4/51)

University of Hong Kong

01/2013 – 05/2013

- CompSc. BA Engineering GPA 3.86 (4.3 scale)

Awards

- Outstanding Study Scholarship, Tsinghua University 09/2013
- Fung Scholarship, Fung Scholar Program, Vector and William Fung Foundation 01/2013
- Scholarship of Zheng Geru Foundation 09/2012
- Third prize, Hai-yun-tian Software competition of Beijing city 04/2012
- Scholarship of Suzhou Industry 09/2011

Professional Experience

Recommendation Team, Hulu China. Dev. intern

07/2013 – 10/2013

- Built a real-time simulation and monitor online tool (Simly) for recommendation team staff, product manager and content editors to monitor and test the result of recommendation algorithm which are used in Hulu
- The work covered frontend, backend and automatic testing
- Manipulate large amount of data (Hulu users' behavior, or models whose parameters could be more than 10 million) from hadoop, sample, store and index them in mongodb for fast query
- Communicate with end users to help them refine detailed requirements of the tool

Qi-Ming-He-Xin, Inc. Early member. Core developer

10/2013 – 07/2014

Contributing to education informationization in China

- Developed and refined most features in the current system (Django, Python).
- Developed highly complex web application with AngularJS and jQuery.
- Apply *Natural Language Processing* algorithm in question analysis.
- Optimized the system in both front-end and back-end. Reduced API response time significantly(<300ms in average)

Projects

NHSDLC. outsource project

10/2013 – 07/2014

A online management tool for arranging national or locational debate tournaments

- Play the role of project manager and Dev. leader.
- For team and project management, apply scrum methodology and integrate with Github Workflow.
- Build prototypes. Communicate with clients, analyze requirement and help them design website functions.
- Design system architecture and implementation

Yunimpact.com. startup project

08/2012 – 01/2013

A online platform, based on analysis of data collected from Weibo and Renren(Chinese version of Twitter and Facebook), provides accurate marketing service to advertisers and companies.

- Developed with NodeJS. Contributed to the development of the platform as a core developer (one of two initial

technical team members), including front end, back end, UI design.

- Collected data from social media, stored and indexed them in mongodb, and applied analysis algorithms on them, thus obtain evaluation about how influential a person is under a certain topic.
- Refactored the system frequently in response to changes in business level.

News Website Extractor

06/2012 – 09/2012

A tool used to extract news' title, content, time, source from heterogeneous Chinese news website

- Developed in Java independently.
- Analyze html by converting it into a DOM tree, and extract target information based on relations between DOM nodes and text feature inside DOM nodes.
- Use extra information such page URL to filter out useless website pages.
- Achieved an accurate rate of over 98% on a test set with 1G text data obtained from mainstream Chinese websites.

Be-Casual Controller

03/2012 – 05/2012

A PC software allow user to control computers with hand motions without using keyboard or mouse

- Developed in C++ with OpenCV.
- Designed hand region extraction and hand tracking algorithm.
- Tested the software indoor and outdoor, with different backgrounds under different illumination in order to improve robustness.
- Achieved promising result while being used in real world scenario, such as controlling slides or music players.

THSS Face Search Engine

12/2013 – 02/2014

A content-based face image search system

- Detect face, extract features (T3hS2) with OpenCV in C++. Communicate with search engine through JNI.
- Develop the search framework. Use soft-quantization to boost performance.

Research Experience

Non-negative Matrix Factorization based Transfer Learning

02/2014 – 06/2014

- Design algorithms to apply NMF(Non-negative matrix factorization) in common subspace learning for knowledge transfer
- Design and run experiments to validate algorithm performance. Achieve better results in different datasets than state-of-art methods like TCA, JDA
- Design and implement a system that can automatically download news documents through RSS and extract the content of them. These documents would later be used to test the transfer learning algorithms

Extra Curriculum Activities

Vice director, student union of school of software

09/2011 – 07/2012

Team leader, led a team to research the influence of prompting mandarin to local dialects

01/2012 – 02/2012

Volunteer, Red cross of Tsinghua University

09/2010 – 09/2011

Interest

Guitar, Music, Basketball, Science Fiction