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

Projects

SigmaloveEDU. *startup project*   10/2013 - Now

A tool for managing exam papers, analyzing students' study situation for teachers in high school
➢ 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)

NHSDLC. *outsource project*   10/2013 – Now

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.

Research Experience

THSS Face Search Engine   12/2013 - Now

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.

Single View Reconstruction   03/2013 – 05/2013

A project aims at reconstructing objects with point light source.
- Proposed a method based on RANSAC and Random Hough Transform to accurately extract eclipses' contours in images.
- Developed a system to automatically calculate the position of point light source in world coordinate with images only (with several specular spheres in the images). The errors are within 1 cm.

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