WOLONG YUAN

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EDUCATION

Zhejiang University   Hangzhou, China
B.S. in Computer Science   Sept. 2013 – Jun. 2017

- Overall GPA: 3.88/4.0 (88.21/100), The third year GPA: 3.97/4.0 (90.68/100), rank 11/189; admitted based on top national college admissions exam scores (top 0.1%).
- Selected awards: National Endeavor Fellowship (awarded to those with outstanding academic performance and all-round development in moral, intellectual and physical), Second-Class Scholarship for Outstanding Students (top 8%), Third Prize in Zhejiang Physics Innovation Competition.

Singapore University of Technology and Design (SUTD)   Singapore
Exchange Student at Information Systems Technology and Design (ISTD) Department   Sept. 2016 – Dec. 2016

PUBLICATIONS

Chunli Fu, **Wolong Yuan**, Zunlei Feng, Jie Lei, Mingli Song. *Finding Intrinsic Color Themes in Images With Human Visual Perception*. Neurocomputing. Accepted, 2016.

WORK AND RESEARCH EXPERIENCE

Singapore University of Technology and Design, ISTD   Singapore
Sentiment Analysis in Informal Text, Visiting Intern   Sept. 2016 – Dec. 2016
Research Advisor: Professor Wei Lu

- Developed a sentiment analysis system for tweets crawled from Weibo based on the Conditional Random Field (CRF) model.
- Built a website for collaborative text annotation with the brat, a rapid annotation tool.
- Preprocessed the annotated data with Jieba, a Python Chinese word segmentation module.
- Designed an advertisement filtering model, the main part of which is a classifier based on SVM, decreased the advertisement rate to less than 10%.

Zhejiang University, Innovative Software Technology Development Center (EAGLE)   Hangzhou, China
Extract Color Themes in Images, Research Assistant   Feb. 2016 – Jun. 2016
Supervisor: Professor Mingli Song

- Designed and implemented a model that can extract an adaptive number of themes that are most close to human-extract in images.
- Used the Simple Linear Iterative Clustering (SLIC) algorithm to generate superpixels with uniform size and shape.
- Improved the Louvain method to get specified number of communities from initial color network.
- Implemented a data-driven approach to make the result closer to human-extract color themes.
- Tested on a public dataset, experimental results demonstrated that our model outperforms previous approaches in terms of the number of themes, span, and accuracy.

Zhejiang University, CAD & CG State Key Lab   Hangzhou, China
Storyline Visualization, Team Leader of Student Research Training Program   Apr. 2015 – Apr. 2016
Research Advisor: Professor Yingcai Wu

- Designed and implemented a visualization system that illustrates the dynamic relationships between entities of a story intuitively and aesthetically.
- Enabled users know about the development of stories through abundant interactive explorations.
- Implemented an efficient hybrid optimization approach that combines discrete and continuous optimization.

Zhejiang University Press, Hangzhou, China   Apr. 2015 – Jun. 2015
Web Development Intern (part-time)

- Modified and upgraded a website to promote it nationwide.
- Redesigned the UI to make the website more concise and more user-friendly.
- Rewrote and added some functions and upgraded the server to get better performance and compatibility.

SELECTED PROJECTS

Lift-JS: A JavaScript Interpreter Written by Python   May 2016 – Jun. 2016
Team Member, Course: Compiler System Design, Score: 93/100, Instructor: Ying Li.

- Designed and implemented a JavaScript interpreter that supports primary features of ECMAScript 2015.

- Implemented a virtual machine and some helpful optimization like fold constant and eliminate unreachable.
- Wrote documentation using Sphinx and tested the interpreter using pytest.

A Web-based Instant Messaging System   Mar. 2016 – Jun. 2016
Independent, Course: Software Design of BS System, Score: 100/100, Instructor: Xiaojun Hu.
- Developed an instant messaging system that can be used in web client and mobile client.
- Implemented with techniques including React, React Native, Redux, Socket.io, Webpack, Sequelize, antd, MySQL, Redis.

FolderMap: A Folder Visualization System   Nov. 2015 – Jan. 2016
Independent, Course: Introduction to Information Visualization, Score: 96/100, Instructor: Wei Chen.
- Designed and implemented a visualization system that displays the hierarchical relationship of folders considering the size of each folder.
- Provided some interaction explorations and a multi-associated view consisting of a treemap, circle packing, pie chart, and bar chart.

I Say: An Android App   Sept. 2015 – Dec. 2015
Team Leader, Course: Smartphone Software Development, Score: 94/100, Instructor: Shijian Li.
- Developed an android app that help users find interesting and useful stories about a place.
- Implemented the back-end with Node.js as the server and MongoDB as the database.
- Obtained geographic information and map through the Baidu LBS API.

MiniSQL Database Management System   Sept. 2015 – Nov. 2015
Team Member, Course: Database System Design, Score: 91/100, Instructor: Ling Chen.
- Designed and implemented a DBMS, which can create/delete/query tables/records/indexes by interpreting SQL.
- Implemented the Index Manager with B+ tree.
- Adopted Least Recently Used (LRU) policy in the Buffer Manager module.

LEADERSHIP AND COMMUNITY ACTIVITIES

Temasek Foundation Leadership Enrichment and Regional Networking (LEaRN) Sept. 2016 – Dec. 2016
Volunteer, Singapore
- Visited elderly individuals at All Saints' Home, taught them to create acrylic paintings.
- Participated in organizing Run@SUTD, a public welfare running campaign aimed to raise money for the disabled.
- Participated in the warm up for Purple Parade, a grand campaign in Singapore that shows support to people with special needs.
- Volunteered to take care of dogs at OSCAS (Oasis Second Chance Animal Shelter).

Voluntary Teaching, a primary school in Henan Province   Jul. 2015 – Aug. 2015
Volunteer, Zhoukou, China
- Taught Math and English to about 30 students.

Electrical Volunteer Association of Zhejiang University   Oct. 2014 – Jun. 2015
Technician, Hangzhou, China
- Volunteered to help students or locals repair and maintain their PCs.
- Spent more than 50 hours and helped about 20 people in total.

Publicity Department of Student Union, Computer College   Oct. 2013 – Oct. 2014
Secretary, Hangzhou, China
- Led the team to organize a Puzzle Contest, devised contest rules and incentive system, attracted more than 120 participants, awarded The Most Popular Activity by Computer Festival Committee.
- Designed posters, brochures for a Hackathon and some lectures.
- Edited activity notifications and posted on the college website.

TECHNICAL STRENGTHS

Languages	C/C++, Python, JavaScript, Java, MATLAB
Frameworks & Tools	Visualization (D3.js, Gephi, ECharts)
	Machine Learning & NLP (scikit-learn, Theano, CRF++, NLTK)
	Software Development (Git, Makefile, Node.js, React, MongoDB, MySQL, Electron)
	Documentation (Sphinx, Markdown, LATEX)