# LI, Zhihao http://codinfox.github.io

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#### **EDUCATION**

**Tongji University** 

Shanghai, China

B.Eng. in Software Engineering

*Sept.*2011 - *Jun.*2015 (*Expected*)

• GPA: 4.95/5.0 Ranking: 1/149

• Related Courses: Object-Oriented Programming, Data Structures, Operating System, Compiler Principle, Computer Architecture, Computer Network, Data Mining & Analysis, Machine Learning

#### Rose-Hulman Institute of Technology

Terre Haute, IN

Visit Student in Computer Science & Software Engineering

Aug.2014 - Nov.2014

• GPA: 4.0/4.0

• Related Courses: Design & Analysis of Algorithms, Artificial Intelligence

#### **RESEARCH EXPERIENCES**

Interest: Computer Vision, Machine Learning

## **Biologically Inspired Vision-based Indoor Localization**

Terre Haute, IN

Directed by Prof. David Mutchler, Rose-Hulman Institute of Technology

Sept.2014 - Present

- Make use of biologically plausible method of Visual Saliency and Gist
- Make use of SIFT feature and descriptor, BoF model, and SVM
- Symposium: 11th Interdisciplinary Research Collaborative of RHIT Oral Presentation: *Biologically Inspired Vision-based Indoor Robot Localization and Scene Classification*

#### iLab@Tongji, Undergraduate Research

Shanghai, China

Directed by Prof. Laurent Itti, Tongji University and University of Southern California

Jan.2014 - Present

- Research on indoor service robot localization and navigation and applications of Saliency and Gist
- Independently implemented biologically plausible algorithm of Gist of a scene
- Independently implemented color manipulation algorithms including Retinex

#### Multimedia & Intelligent Computing Lab, Undergraduate Research

Shanghai, China

Directed by Prof. Hanli Wang, Tongji University

Sept.2013 - Dec.2013

- Research on computational aesthetics based image retrieval engine
- Tried to use of intensity, color, texture and shape features to assess whether a picture is beautiful
- Developer of the iOS client of a image search application

**MOOC:** Machine Learning Coursera Certificate

Jun.2014

#### **TEACHING EXPERIENCES**

## **Teaching Assistant**

Shanghai, China

School of Software Engineering, Tongji University

Spring, 2013

- Teach exercise and review sessions of the first year Digital Logic course
- Outstanding Teaching Assistant Award

#### PROJECT EXPERIENCES

#### NRT (Neuromorphic Robotic Toolkit)

Shanghai, China

Cooperating with USC iLab

Aug.2014 - Present

Contributor

Develop several color manipulation and image processing algorithms, including Retinex and Gist

#### GF - An Memory-aid Application for learning English Words

Shanghai, China

Cooperating with New Oriental Education & Technology Group(NYSE:EDU)
Project Manager

Aug.2013 - Feb.2014

• Developed an iOS application with proper algorithm to help people better memorizing English words

## Using Networks to Measure Influence and Impact

Shanghai, China

Interdisciplinary Contest in Modeling

Feb.2014

- Used Matlab, SPSS, Excel and Gephi to do co-authorship network and do data visualization
- Proposed an Entropy-Weight-Based Gray Relational Analysis model, a quantitative method for analyzing the correlation between two subjects and avoid human interference in the weighting process.

## Cellular Automaton Simulation Based Analysis Model on City Lane Occupation

Shanghai, China

Nov.2013

China Undergraduate Mathematical Contest in Modeling
Used Matlab to implement cellular automaton model and simulate the city traffic

Navigation Instrument for Smartphones Based on Real-time Traffic Condition

Shanghai, China

Funded by Shanghai Innovation Experiment Program

Nov.2011 - Nov.2013

Team Leader

• Developed an cross-platform web-based HTML5 app to gather and share real-time traffic conditions across Shanghai automatically and provide the users with the best driving route

### SmartEXPO - An Online Exhibition System

Shanghai, China

Funded by SITP (Student Innovation Training Program), Tongji University Web Front-end Engineer

Mar.2013 - Jun.2013

Developed a web-based virtual online exhibition system to aid the real-world exhibitions using HTML5

#### CloudEDU - An Online Education System

Shanghai, China

Project for Microsoft ImagineCup 2014 and Course Project Database Administrator

Aug.2013 & Mar.2014

Developed a C/S application to enable people to share their knowledge with SQL Server and C#

#### **HONOURS & AWARDS**

14' Google Excellence Scholarship, Google (Top 62 nation-wide, including graduate students)

Meritorious Winner of Interdisciplinary Contest in Modeling 2014 (Globally Top 10%)

**Paper**: Using Networks to Measure Influence and Impact

First Prize for Microsoft ImagineCup 2014 Tongji U, Microsoft

**National Scholarship**, Ministry of Education of the People's Republic of China (Top 0.2%) *I was the only one in my school who won the scholarship for two consecutive academic years.* 

First-class Scholarship, Tongji University (Top 10%)

Second Prize for China Undergraduate Mathematical Contest in Modeling, Shanghai (Top 10%)

**Paper**: Cellular Automaton Simulation Based Analysis Model on City Lane Occupation

Outstanding Student Award, Tongji University (Top 10%)

**12' National Scholarship**, Ministry of Education of the People's Republic of China (Top 0.2%)

First-class Scholarship, Tongji University (Top 10%)

Outstanding Student Award, Tongji University (Top 10%)

Outstanding League Member Award, Tongji University (Top 5%)

Bronze Prize for Master the Mainframe Contest, IBM

#### **TECHNICAL STRENGTH**

**Programming Languages Platforms** 

**Tools** 

C/C++, Matlab, Python, Java, JavaScript, HTML, CSS, LATEX, Objective-C

Linux, Web, OS X (Unix), iOS

Git, SVN, Vim, GDB