

Kai Ling

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EDUCATION

Huazhong University of Science and Technology(HUST)

Bachelor of Science in Computer Science (CS) and Technology

Wuhan, China

Aug. 2015- Present

GPA: Overall GPA: 3.85/4.0 (Ranking: 5%)

Junior Year GPA: 3.89/4.0 (Ranking: 5%)

Core Courses: Soft Engineering (96) / Higher Mathematics University Physics (99) / Linear Algebra (94) / Probability Theory(92) / Discrete Mathematics (90) / Signal and Linear System (94) / Calculus (93) / Assembler Language Programming (88) /

AWARDS

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|---|------|
| 1. Scholarship for Freshmen (1 out of 120), HUST | 2015 |
| 2. National Scholarship (2 out of 120), HUST | 2017 |
| 3. Model Student of Academic Records (5 out of 120), HUST | 2017 |
| 4. Awarded Outstanding Student (4 out of 120), HUST | 2017 |

RESEARCH EXPERIENCES

Research Assistant | Deep Learning Group | HUST

Wuhan, China

Advisor: Kun He, the Prof., HUST, visiting scholar in Cornell University;

A approach to Estimate the Dimension of The Deep Manifold

July. 2017- Nov. 2017

- Observed the dramatic drop for the singular values of the fully connected layers or a single feature map of the convolutional layer;
- Proposed a singular value decomposition (SVD) based approach to estimate the dimension of the deep manifolds for a typical convolutional neural network;
- Discovered that the dimensions of different categories are close to each other and decline quickly along the convolutional layers and fully connected layers;

SELECTED COURSE PROJECTS

Project Leader |A Managing System For Reservation To Register Online | HUST

Sept. 2017 – Nov. 2017

Course: *Software Engineering*

- Built a reservation system to register online in hospitals solely with many functions, following the standards in Software Engineering such as data flow diagram and IPO sheet;
- Utilized the structured analysis and OOA to analyse the requirements of the doctors, patients and the managers of the hospital;
- Used the C to build the system and the code scalability is good;
- Concluded 51 pages report to summarize the analysis and proof;
- Obtained a high score of 96 in the project evaluation, ranking the Top 3 in all teams;

A Chat Software Based On UDP And TCP Protocol | HUST| Project Leader |

Nov. 2017 – Jan. 2018

Course: *Computer Network*

- Proposed many important functions solely, such as chatting online and offline, supporting more than one group to chat, transporting files based on UDP protocol; the software was multi-users by using multithreading;
- Improved the UDP protocol to realize the reliable data transmission;
- Obtained a high score of 89 in the project evaluation;
- Concluded 78 pages report to summarize the analysis and proof;

Multi-period CPU Design Based on Verilog| HUST | Project Leader |

Feb. 2018 - Mar. 2018

Course: *Computer Organization*

- Completed an multi-period CPU based on Verilog with many MIPS instructions solely, such as syscall(display or exit), branch on equal, loading word, adding;
- Equipped the CPU with the registers, ALU and the storage system;
- Supported the CPU with the pipeline technology;
- Gained praises by professors of the course;
- Concluded 65 pages report to summarize the analysis and proof;

LEADERSHIP AND ACTIVITIES

Vice Monitor | General Committee Office in Center of Art Education, HUST

Sept 2016-Present

- Hosted bi-weekly class meetings;
- Designed organized more than 10 events and activities, including tours, contests and discussions;
- Organized the Excellent League Activity and won the first prize in school (10 out of 70 groups);
- Recognized for the Outstanding Student Leadership in HUST, given to 10 students out of 120;

Piano Pedagogy | Chorus of HUST

Sept 2016-Present

- performed in more than 20 concerts;
- Apraised by many professors including Gregory Wait(the dean of Department of Music in Stanford University);
- Entered national competition finals in University Students Arts Festival;
- volunteered in Internet innovation and Entrepreneurship Competition in 2016;

SKILLS

- **Programming Languages:** Proficient in C/C++/JAVA, Assembly Language, Matlab;
- **Language:** Mandarin (Native), English (Fluent, rich experiences in scientific English reading and writing);