**Kai Ling**

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**Education**

**Huazhong University of Science and Technology( HUST) Wuhan, China**

Bachelor of Science in Computer Science (CS) and Technology Aug. 2015- Present

**GPA:** Overall GPA: 3.83/4.0 (Ranking: 12%)

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) /

Personal Character: Piano soloist in Symphony Orchestra of HUST; Piano pedagogy in Chorus of HUST

**Awards**

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

5. First prize in International Art Federation Music Competition 2014

6. First prize in Asia-Pacific Youth Piano Competition 2009

**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);
* Piano Playing