ZHENBANG WU

718 East Haizhou Road, Haining, 314400, China

zw12@illinois.edu ⋄ http://zzachw.github.io

EDUCATION

Zhejiang University — Haining, CN
Bachelor of Engineering in Electronics and Computer Engineering — *Expected Jun. 2020*
GPA: 3.93/4.0 (Total Enrolled Units: 68)

University of Illinois at Urbana-Champaign — Urbana, US
Bachelor of Science in Computer Engineering — *Expected May 2020*
GPA: 3.94/4.0 (Total Enrolled Units: 61)

University of California, Los Angeles — Los Angeles, US
Cross-disciplinary Scholars in Science and Technology (CSST) Program — *Jun. - Sep. 2019*
GPA: 4.0/4.0 (Total Enrolled Units: 12)

RESEARCH EXPERIENCES

Research Assistant, University of California, Los Angeles — *Jun. - Sep. 2019*
Advisor: Prof. Yizhou Sun
Learning to Transfer via Modelling Multi-level Task Dependency
○ Constructed attention based tasks dependency relationships on general level and data-specific level
○ Utilized the learned tasks dependency relationship to guide what knowledge should be transferred
○ Outperformed SOTA multi-task learning methods on "discrete" data (graph and text)
○ Received UCLA-CSST Outstanding Research and Presentation Skills Award (Top 10%) [Certificate]

Image Processing Algorithm Intern, Leadmove Technology (Shanghai) — *Jun. - Aug. 2018*
Mentor: Dr. Laiye Bi and Dr. Longtao Yuan
Development of AI Front-view Advanced Driver Assistance System (ADAS)
○ Developed an image post-processing system, which integrated distortion correction, (inverse) perspective mapping, position detection, and speed measurement
○ Developed a camera calibration system based on Optical Flow and Newton's Method
○ Improved the accuracy and efficiency of online camera calibration compared to existing methods

Research Assistant, ZJU-UIUC Institute — *May 2018 - May 2019*
Advisor: Prof. Chushan Li
Development of Smart Power Outlet for Plug-in Electric Vehicles
○ Developed a smart power outlet with functionalities such as charging measurement, circuit breaker, and cloud communication
○ Utilized Internet of Things (IoT) module to collect real user data for analysis

SELECTED PROJECTS

Applied Parallel Computing — *Spring 2019*
ZJU-UIUC Institute — Haining, CN
CUDA Accelerated Mitosis Detection, https://github.com/zzachw/Mitosis-Detection-with-Transfer-Learning
Advisor: Prof. Steven Lumetta
○ Utilized SOTA Convolutional Neural Network (CNN) to detect mitosis cells
○ Optimized the CUDA implementation of CNN with novel fast matrix multiplication algorithm
○ Accelerated the forward propagation of CNN by 181% compared to existing CUDA implementation

Computer Systems Engineering *Fall 2018*
University of Illinois at Urbana-Champaign Urbana, US
Linux System Design, https://github.com/zzachw/Linus-System-Design
Advisor: Prof. Zbigniew Kalbarczyk and Prof. Jian Huang
- Developed the core of an operating system from scratch
- Realized several basic functionalities such as system calls, scheduling, and file system
- Added several advanced functionalities such as graphical terminal, Chinese Pinyin input method editor, drivers (sound, mouse, tux), ACPI power-off and reboot, and CMOS date time
- Ranked No. 1 among 54 groups in the design competition [Certificte]

PUBLICATIONS & PRESENTATIONS

1. Haonan Wang[*], **Zhenbang Wu**[*], Ziniu Hu, Yizhou Sun, *"Learning to Transfer via Modelling Multi-level Task Dependency"*, **Under Review**

2. *"Chemical Property Prediction via Graph Knowledge Transfer"*, **Invited Presentation** at UCLA-CSST Final Presentation (Top 10%), Los Angeles, US, Sep. 2019

   * indicates equal contribution

TEACHING EXPERIENCES

Teaching Assistant, ECE220 Computer Systems & Programming, ZJU-UIUC Institute *Fall 2019*
Instructor: Prof. Zicheng Liao

Teaching Assistant, CS225 Data Structure, ZJU-UIUC Institute *Spring 2019*
Instructor: Prof. Volodymyr Kindratenko

* T.A. jobs include leading the discussion/lab sessions, holding the office hour, answering questions on Piazza, grading the homework/exams, and giving a few lectures (if professors are absent)

SELECTED HONORS & AWARDS

National Scholarship (Top 2%) Ministry of Education of the P.R. China, *2019*
Zhejiang University Scholarship - First Prize (Top 3%) ZJU, *2019*
CSST Outstanding Research and Presentation Skills Award (Top 10%) UCLA, *2019*
CSST Scholarship (USD $5,343) UCLA, *2019*
Dean's List UIUC, *2019*
First Place, Computer Systems Engineering Design Competition (1/54 groups) UIUC, *2018*
Zhejiang University Scholarship - Second Prize (Top 8%) ZJU, *2018*
Second-Class Academic Excellence Scholarship ZJU-UIUC Institute, *2018*
Zhejiang University Scholarship - Third Prize ZJU, *2017*
First-Class Academic Excellence Scholarship ZJU-UIUC Institute, *2017*

TEAMWORK EXPERIENCES

President of Student Union of Intl. Campus, Zhejiang University *May 2017 - May 2019*
Teaching Volunteer in Rural China *Jun. 2017*

STANDARD TEST

TOEFL: 109 (Reading: 29, Listening: 30, Speaking: 25, Writing: 25)
GRE: 329 (V159 + Q170) + 3.5(AW)