ZHENBANG WU

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EDUCATION

Zhejiang University   Haining, CN
Bachelor of Engineering in Electronics and Computer Engineering   *Sep. 2016 - 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   *Aug. 2016 - 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)

Highlighted Courses: Intro. to Data Mining (A), Applied Machine Learning (A), Applied Parallel Programming (A), Computer Systems Engineering (A+), Probability (A), Algorithms (A), Data Structures (A+), Computer Systems & Programming (A+), Digital Systems Laboratory (A)

RESEARCH EXPERIENCES

Research Assistant, University of California, Los Angeles   *Jun. - Sep. 2019*
Advisor: Prof. Yizhou Sun
Learning to Transfer via Modeling Multi-level Task Dependency
○ Constructed attention based tasks dependency relationships in 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 structured data (graph and text)
○ Received UCLA-CSST Outstanding Research and Presentation Skills Award (Top 10%)

Image Processing Algorithm Intern, Leadrive Technology (Shanghai)   *Jun. - Aug. 2018*
Mentor: Dr. Laiye Bi and Dr. Longtao Yuan
Development of AI Front-view Advanced Driver Assistance System (ADAS)
○ Independently designed an image post-processing system, which integrated distortion correction, (inverse) perspective mapping, position detection, and speed measurement
○ Independently designed 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
○ Realized functionalities such as charging measurement, circuit breaker, and cloud communication
○ Utilized Internet of Things (IoT) module to collect real user data for analysis

SELECTED COURSE PROJECTS

ECE408 Applied Parallel Computing, Final Project   *Spring 2019*
ZJU-UIUC Institute   Haining, CN
GPU Accelerated Mitosis Cell Detection
Advisor: Prof. Steven Lumetta
○ Utilized SOTA Convolutional Neural Network (CNN) to detect mitosis cell

○ 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

ECE391 Computer Systems Engineering, Design Competition *Fall 2018*
University of Illinois at Urbana-Champaign Urbana, US
Linux 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

PUBLICATIONS & PRESENTATIONS

1. Haonan Wang[*], **Zhenbang Wu**[*], Ziniu Hu, Yizhou Sun, *"Learning to Transfer via Modeling Multilevel Task Dependency"*, **unpublished,** under review at The Eighth International Conference on Learning Representations (**ICLR'20**)

2. *"Chemical Property Prediction via Graph Knowledge Transfer"*, Invited Presentation at UCLA-CSST Final Presentation, 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

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*

○ **Outstanding Student Award**, ZJU, *2017 & 2018 & 2019*

○ **Zhejiang University Scholarship - Second Prize** (Top 8%), ZJU, *2018*

○ **Second-Class Academic Excellence Scholarship**, ZJU-UIUC Institute, *2018*

○ **First Place**, ECE391 Computer Systems Engineering Design Competition (1/54), UIUC, *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*
Volunteer at 120th Anniversary of Zhejiang University *May 2017*

STANDARD TEST

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