

ZHENBANG WU

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EDUCATION

Zhejiang University

Bachelor of Engineering in Electronics and Computer Engineering

GPA: 3.93/4.0 (Total Enrolled Units: 68)

Haining, CN

Expected Jun. 2020

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Engineering

GPA: 3.94/4.0 (Total Enrolled Units: 61)

Urbana, US

Expected May 2020

University of California, Los Angeles

Cross-disciplinary Scholars in Science and Technology (CSST) Program

GPA: 4.0/4.0 (Total Enrolled Units: 12)

Los Angeles, US

Jun. - Sep. 2019

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+), Directed Research (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, [Leadmove 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 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

PUBLICATIONS & PRESENTATIONS

1. Haonan Wang*, Zhenbang Wu*, Ziniu Hu, Yizhou Sun, “Learning to Transfer via Modeling Multi-level Task Dependency”, **under review**
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

* T.A. jobs including 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)