

EDUCATION

Carnegie Mellon University (CMU) , PA, US	SEP. 2018 - DEC. 2019
M.S. in Computer Science, <i>School of Computer Science</i> , GPA: First Semester	
Shanghai Jiao Tong University (SJTU) , Shanghai, China	SEP. 2014 - AUG. 2018
<i>University of Michigan - Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)</i>	
B.S. in Electrical and Computer Engineering, Overall GPA: 3.70 / 4.0, Rank: 8 / 97	
Case Western Reserve University (CWRU) , Cleveland, USA	SPRING 2017
Exchange student in EECS department, Semester GPA: 4.0 / 4.0	
Courses: Database, Programming Language Concepts, Theoretical C.S., Software Engineering	

PROFESSIONAL EXPERIENCES

June 2018	Hardware Test Engineering Intern, APPLE INC.
DEC 2017	Develop low-level factory diagnostic and testing framework for Apple Watch in C <ul style="list-style-type: none"> Wrote embedded C code running in <i>Extensible Firmware Interface (EFI)</i> environment. Developed highly reliable software that goes directly into mass production. Redesigned and implemented new USB stack featuring flexibility and extensibility. New stack allows the device to select interfaces that are enumerated at runtime.

RESEARCH EXPERIENCES

Current MAY 2016	Research Assistant, EMERGING COMPUTING TECHNOLOGY LABORATORY, SJTU <i>Research on disjoint bi-decomposition based approximate logic synthesis algorithms</i> <ul style="list-style-type: none"> Proposed to approximate Boolean functions by <i>Maximal Disjoint Bi-Decomposable functions</i>. Designed and implemented efficient algorithms to obtain such approximation using C++. Built an high performance logical circuit simulator by translating target circuit into C++ code, compiling it, and dynamically linked into application. Simulator achieved over 5,000 times speed-up compared to naive implementations, capable of completing 500 simulations on circuits of thousands of gates. Published a first-authored full length paper at ICCD'17, Boston Area, Massachusetts, USA.
JUL 2017 SEP 2016	Research on image processing and recognition, INNOVATIVE PRACTICE PROGRAM, SJTU <i>Built a web-app to extract digits from a credit card photo</i> <ul style="list-style-type: none"> Applied <i>Hough transformation</i> to locate edges of a credit inside an image. Trained a <i>Convolutional Neural Network</i> that recognizes digits with 95% accuracy. Achieved an overall success rate of 90% in daily context. Deployed <i>Django (Python)</i> based back-end to <i>Amazon Elastic Beanstalk</i>.

RELATED PROJECTS

SPR 2017	Object-oriented language interpreter in Scheme (Programming language concepts), CWRU <ul style="list-style-type: none"> Supported object oriented features including classes, inheritance, polymorphism. Supported first-class functions, closures, and overloads. Language is strongly typed. Utilized continuations to manage control flow (<i>break</i>, <i>continue</i> and exceptions).
SU 2017	Online C/C++ auto-grading web application for computer science courses , UM-SJTU JI <ul style="list-style-type: none"> Coded in Python with Django. Built secure process container through <i>cgroup</i> and <i>seccomp</i>. Fulfilled continuous integration and delivery through <i>git</i>, <i>Jenkins</i> and <i>Docker</i>. System served over a hundred students till now without any failure or breach.

PUBLICATIONS

Z. Zhou, Y. Yao, S. Huang, S. Su, C. Meng and W. Qian, "DALS: Delay-driven Approximate Logic Synthesis" in *2018 International Conference on Computer Aided Design*, 2018. To appear.

Y. Yao, S. Huang, C. Wang, Y. Wu and W. Qian, "Approximate Disjoint Bi-decomposition and Its Application to Approximate Logic Synthesis" in *2017 IEEE 35th International Conference on Computer Design*, 2017.

SERVICES

Undergraduate Teaching Assistant since 2016 Fall, served over 500 students in UM-SJTU JI		
FA 2016	INTRO. TO COMPUTERS & PROGRAMMING	Assisted instructor in designing exams and projects.
SU 2016	HONORS PHYSICS II	Led recitation classes and grade exams.
FA 2017	PROGRAMMING & ELEM. DATA STRUCTURES	Developed a secure autograder.
SU 2017	INTRO. TO OPERATING SYSTEMS	Supervised servers, rewrote course projects.
MAY 2017	Awarded Annual Outstanding Teaching Assistant from UM-SJTU JI.	

HONORS & AWARDS

MAY. 2018	Shanghai Jiao Tong University outstanding graduate award
Nov. 2017	John Wu & Jane Sun Merit Scholarship (\$2800, 5 students in the institute)
Nov. 2017	Shanghai Jiao Tong university academic excellence scholarship (Top 1%)