Yongming Ding

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EDUCATION

Shanghai Jiao Tong University (SJTU), Shanghai
Master of Science in Electronic Science and Technology *Sep. 2016 - Present*
◇ Overall GPA: 3.72/4.0 ◇ Major GPA: 3.86/4.0
◇ 1^{st} Prize in 12th China Graduate Electronics Design Contest (Ranked 2^{nd} in more than 100 teams in the final)
Bachelor of Science in Microelectronics *Sep. 2012 - Jun. 2016*
◇ Overall GPA: 86.32/100, 89.13/100(last two years) ◇ Major GPA: 87.70/100, 89.30/100(last two years)
◇ Received a waiver for the National College Entrance Exam to enter SJTU, as 1st Prize in National Olympiad in Physics (Henan Province, top 0.01%)
◇ Solid expertise in Python, Experienced in C/C++, Javascript, HTML/CSS, SQL, JAVA, MATLAB

INTERNSHIP

Ctrip Computer Technology Co.,Ltd., Shanghai *July. 2015 - Dec. 2015*
Software Engineer Intern
◇ Developed and improved software tools to enhance site reliability and increase products development efficiency.
◇ Constructed "Alert-Subscribe", an alert event subscription system with another intern. Completed the back-end job including obtaining alert events periodically, classifying alert events with regular expression and sending notification to subscribers, using Python and SQL.
◇ Independently designed and implemented "Prometheus", a web service cluster consumers display platform, to show the dependency relationships between web service clusters, using Django as a back-end framework, Bootstrap for the front-end framework, and MySQL database and Redis database to store tasks scheduling queue.

PUBLICATIONS

Yongming Ding, Wei Jin, Guanghui He, Weifeng He. "Short Path Padding with Multiple-Vt cells for Wide-Pulsed-Latch Based Circuits at Ultra-Low Voltage." *IEEE International Conference on ASIC* (2017). Accepted.

RESEARCHES AND PROJECTS

Short Path Padding Technique Design *July. 2016 - present*
◇ Designed and implemented a short path padding software system employing integer linear programming method, which supports up to a wide pulse of 1/3 cycle time in pulsed-latch pipelines.
◇ Proposed step-by-step based and path group based schemes to reduce up to 80.9% runtime of the baseline padding algorithm and used multiple-Vt buffer cells to reduce additional hardware cost by 52.3%, on average.
Image Super-Resolution Using Convolutional Neural Network(CNN) *July. 2017*
◇ Applied deep learning techniques to sharpen or improve the quality of a low-resolution image input by outputting a super-resolved high-resolution image. Proposed a 7-layers CNN which got lower loss value and reduced 10% training time, compared with "waifu2x", a open source image super-resolution software.
"Eye of Providence", an Intelligent Monitoring System *May. 2017*
◇ Led a group of 4 teammates to build an intelligent classroom monitoring system using face recognition, facial expression detection and speech identification techniques during "Hackathon SJTU 2017".
Three-dimensional Integrated Circuit(3D-IC) Partitioning Technique Design *Jan. 2016 - Jun. 2016*
◇ Excellent graduate thesis in Department of Micro-Nano Electronics, Shanghai Jiao Tong University.
◇ Designed a 3D-IC partitioning algorithm for motion estimation(ME) module of HEVC, including the initial partition algorithm based on breath first search and the iterative optimization algorithm. Achieved an optimum partition for the ME module, which reduced 43% of the cut edges while the area utilization rate reached 96%.
"Yorozuya", a Campus Labor and Information Exchange Platform *Nov. 2014*
◇ Developed a web application for campus users to exchange labor and information in "Hackathon SJTU 2014" with a teammate. Users can release tasks on this app while the others can choose and finish jobs for reward.

HONORS, AWARDS AND CERTIFICATES

Senior skill level computer programmer (JAVA, ARM), occupational qualification certificate, China *2015, 2016*
Scholarship of Academic Excellence, Shanghai Jiao Tong University *2014, 2013*
Outstanding student, Shanghai Jiao Tong University *2014, 2013*
2^{nd} Prize in Shanghai Region, National College Student Physics Competition *2013*