Yuduo Wu

Email: yuduow@gmail.com
Homepage: http://www.yuduowu.com/

EDUCATION

University of California, Davis Davis, CA
Master of Science, Electrical and Computer Engineering 2013 - 2015
Advisor: Professor John D. Owens
Research: Parallel Computing (GPU Computing), Graph Analytics
Thesis: "Performance Characterization of High-Level Programming Models for GPU Graph Analytics"

Macau University of Science and Technology Taipa, Macau
Bachelor of Science, Electronic Information Technology 2009 - 2013

EMPLOYMENT

Software Engineer, **IBM**, San Jose, CA Fall 2015 -
- Prototype, implement, and maintain Cloud Applications/Web Services for Bluemix and SoftLayer.
- Develop health and monitor mechanisms for service accessibility, reliability and data analytics.
- Analyzed and improved the existing APIs and significantly ($\sim$30-50%) reduced the process time.

Internship, **DARPA** (xDATA Workshop), Arlington, VA Summer 2014, 2015
- Worked closely with multiple research groups and companies for big-data analytics challenge.
- Designed and built pure C and Python interfaces for a GPU (CUDA) graph analytics library.

Graduate Student Researcher (GSR), **University of California, Davis**, Davis, CA 2013 - 2015
- Contributed to an open source project (Gunrock) for high-performance graph analytics.
- Implemented Boruvka's parallel minimum spanning tree (MST) algorithm on the GPU.
- Achieved up to $\sim$120$\times$ speedups against a popular serial C++ implementation (Boost).

TECHNOLOGY SKILLS

Familiar: Python, C++, Golang, Git, LaTeX, Shell/Bash, Unix/Linux, JavaScript
Experience: CUDA, R, Java, Haskell, MATLAB, MySQL, Caffe, PHP, React.js

AWARDS & HONERS

IBM Manager's Choice Award, IBM 2015, 2016
Distinguished Paper Award, Principles and Practice of Parallel Programming (PPoPP'16) 2016
IBM Solutions Excellence Award (EA), IBM 2015
Best Paper Finalist, IEEE International Symposium on Workload Characterization (IISWC'15) 2015
Dean's Honor List Scholarship, Macau University of Science and Technology 2011, 2012, 2013
Crystal Cup Award, Top 3 in GPA, Macau University of Science and Technology 2011, 2012, 2013
Nam Kwong Academic Year Scholarship, Nam Kwong (Group) Co., Ltd, Macau 2012

CERTIFICATIONS

Scala Programming for Data Science, IBM Aug 2016
Big Data Spark Foundations, IBM Jun 2016
API Management Concepts, IBM May 2016
edX Verified Certificate for Scalable Machine Learning, edX July 2015

PUBLICATIONS

Yangzihao Wang, Yuechao Pan, Andrew Davidson, **Yuduo Wu**, Carl Yang, Leyuan Wang, Muhammad Osama, Chenshan Yuan, Weitang Liu, Andy T. Riffel, and John D. Owens. "Gunrock: GPU Graph Analytics". *CoRR, abs/1701.01170(1701.01170v1), January 2017.*

Yuechao Pan, Yangzihao Wang, **Yuduo Wu**, Carl Yang, and John D. Owens. "Multi-GPU Graph Analytics". In *Proceedings of the 31st IEEE International Parallel & Distributed Processing Symposium*, IPDPS'17, *May 2017.*

Yangzihao Wang, Andrew Davidson, Yuechao Pan, **Yuduo Wu**, Andy Riffel, and John D. Owens. "Gunrock: A High-Performance Graph Processing Library on the GPU". In *Proceedings of the 21st ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming*, PPoPP'16, pages 11:1-11:12. *March 2016.* **Distinguished Paper**.

Yuduo Wu, Yangzihao Wang, Yuechao Pan, Carl Yang, and John D. Owens. "Performance Characterization of High-Level Programming Models for GPU Graph Analytics". In *IEEE International Symposium on Workload Characterization*, IISWC'15, pages 66-75. *October 2015.* **Best Paper finalist**.

Yuduo Wu. "Performance Characterization of High-Level Programming Models for GPU Graph Analytics". *ProQuest (Master's thesis at University of California, Davis), September 2015.*

LEADERSHIP & SERVICE

Vice President of IEEE Student Branch, Macau University of Science and Technology 2012 - 2013
Managed IEEE student members and organized academic activities.

Coordinator of Macau Volunteer Group, Macau 2011 - 2012
Volunteered to teach rural elementary students and organized voluntary work.