Yuduo Wu

Phone: +1 (530) 574-9209
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 (GPGPU), 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, Cloud Division, San Jose, CA*   Sept 2015-
- Build robust server and client side code for IBM Bluemix platform based cloud applications
- Design and implement service REST APIs, command line, and user interface Microservices
- Develop OpenStack-powered DNS, security groups, and private network peering services

Graduate Student Researcher, *University of California, Davis, CA*   Dec 2013-Sept 2015
- Implemented Boruvka's parallel minimum spanning tree algorithm on GPU with C++/CUDA
- Achieved up to 120X speedup against a popular serial implementation (Boost graph library)
- Developed and maintained an open source library (Gunrock) for large-scale graph analytics
- Characterized and analyzed GPU graph analytics' high-level parallel programming models

Summer Intern, *Defense Advanced Research Projects Agency (DARPA), Arlington, VA* Jun-Sept 2014,2015
- Built high-level pure C and Python interfaces for Gunrock to facilitate external developers
- Implemented graph algorithms to compute attributes and generated JSON for visualization

AWARDS & HONERS

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

SKILLS

Proficient: Python, C/C++, Golang, Git, LaTeX, Shell/Bash scripting, JavaScript, Unix/Linux
Experienced: CUDA, R, Java, Haskell, Matlab, MySQL, Caffe, Spark, Node.js, Scala

CERTIFICATIONS

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

PUBLICATIONS

Refereed Publications

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 2016, 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 2015, pages 66-75. October 2015. Best Paper finalist.

Other Publications

Yuechao Pan, Yangzihao Wang, Yuduo Wu, Carl Yang, and John D. Owens. "**Multi-GPU Graph Analytics**". CoRR, abs/1504.04804(1504.04804v2), April 2016.

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

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

Last updated: June 17, 2016
`http://www.yuduowu.com/`