

Yuduo Wu

Phone: +1 (530) 574-9209
Email: yuduow@gmail.com
Homepage: <http://www.yuduowu.com/>

EDUCATION

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| 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

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|---|--------------------|
| Software Engineer | Sept 2015- |
| IBM, Cloud Division, San Jose, CA | |
| - 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 | Dec 2013-Sept 2015 |
| Department of Electrical and Computer Engineering, University of California, Davis, CA | |
| - 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 Internship (xDATA Workshop) | Jun-Sept 2014,2015 |
| Defense Advanced Research Projects Agency (DARPA), Arlington, VA | |
| - 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 & HONORS

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| 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

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| 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

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| Vice President | 2012-2013 |
| IEEE Student Branch of Macau University of Science and Technology Managed IEEE student members and organized academic activities. | |
| Coordinator | 2011-2012 |
| Macau Volunteer Group Volunteered to teach rural elementary students and organized voluntary work. | |