

Yuduo Wu

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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

@NovuMind Inc.	Santa Clara, CA
Deep Learning Engineer	Spring 2017 -
Building Artificial Intelligence training platform for Intelligent Internet of Things (I ² oT).	
@IBM Watson and Cloud Platform	Silicon Vally Lab, CA
Software Engineer	2015 - 2017
Prototyped and implemented Cloud Applications/Web Services for BlueMix and SoftLayer.	
Developed health and monitor mechanisms for service accessibility, reliability and data analytics.	
Analyzed and improved the existing APIs and significantly (~30-50%) reduced the process time.	
@DARPA (Defense Advanced Research Projects Agency)	Arlington, VA
Research Internship (xDATA Workshop)	Summer 2014, Summer 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.	
@University of California, Davis	Davis, CA
Graduate Student Researcher	2013 - 2015
- Coauthored 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 ~120× speedups against a popular serial C++ implementation (Boost).	

TECHNOLOGY SKILLS

Programming: Python, C/C++, Golang, L^AT_EX, Shell/Bash, CUDA, R, Java, JavaScript
Tools: Git, Unix/Linux, Caffe, PyTorch, TensorFlow, React.js, MPI, Docker, Ansible

AWARDS & HONORS

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

Data Science Foundations , IBM (Acclaim)	Feb 2017
Scala Programming for Data Science , IBM (Acclaim)	Aug 2016
Big Data Spark Foundations , IBM (Acclaim)	Jun 2016
API Management Concepts , IBM (Acclaim)	May 2016
edX Verified Certificate for Scalable Machine Learning , edX	July 2015

PUBLICATIONS

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

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.

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 Managed IEEE student members and organized academic activities.	2012 - 2013
Coordinator of Macau Volunteer Group , Macau Volunteered to teach rural elementary students and organized voluntary work.	2011 - 2012