DONGSHENG YANG

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EDUCATION

Carnegie Mellon University, Pittsburgh, USA *August 2018 - December 2019*
Master of Science in Computer Science GPA: 4.00

Peking University, Beijing, China *September 2014 - July 2018*
B.Sc. summa cum laude in Computer Science GPA: 3.69/4.00 (6 out of 186)

RESEARCH EXPERIENCE

Database Group, Carnegie Mellon University *January 2019 - Present*
Research Intern Advisor: Prof. Andy Pavlo
Project: *Ottertune: automated database tuning with machine learning*
○ Implement data pipeline for tuning Oracle DBMS in Ottertune
○ Add Deep Deterministic Policy Gradients to Ottertune and reduce training time by 90%
○ Double the reward of the original Ottertune tuning algorithm GPR in a synthetic environment
○ Work on a paper submission to VLDB 2020

CASOS, Carnegie Mellon University *June 2017 - September 2017*
Research Intern Advisor: Prof. Kathleen Carley
Project: *user groups relationship mining on Twitter*

Network Big Data Group, Peking University *March 2016 - July 2018*
Research Assistant Advisor: Prof. Tong Yang
Project: *sub-linear data structures for high speed data streams in distributed systems and network*
○ Propose data structures for multi-set query, reducing memory consumption by up to 90%
○ Develop heavy-hitter detection algorithms for frequent elements and durable elements
○ Implement a general framework to accelerate sub-linear data structures by 2x
○ Publish four full-length conference papers, one journal paper, one workshop paper and one poster

WORK EXPERIENCE

Search Infrastructure, LinkedIn Corporation, Sunnyvale *May 2019 - August 2019*
Software Engineer Intern Mentor: Dr. Rui Qiao
Project: *query-after-write consistency check for LinkedIn's search engine indexes*

SELECTED PUBLICATIONS

Tong Yang*, Dongsheng Yang* (* co-primary author), Jie Jiang, Siang Gao, Bin Cui, Lei Shi, and Xiaoming Li. Coloring Embedder: a Memory Efficient Data Structure for Answering Multi-set Query. In *2019 IEEE 35th International Conference on Data Engineering* (**ICDE 2019**).

Dongsheng Yang, Deyu Tian, Junzhi Gong, Siang Gao, Tong Yang, and Xiaoming Li. Difference Bloom Filter: A Probabilistic structure for Multi-set Membership Query. In *2017 IEEE International Conference on Communications* (**ICC 2017**).

Tong Yang, Haowei Zhang, **Dongsheng Yang**, Yucheng Huang, and Xiaoming Li. Finding Significant Items in Data Streams. In *2019 IEEE 35th International Conference on Data Engineering* (**ICDE 2019**).

Junzhi Gong, Deyu Tian, **Dongsheng Yang**, Tong Yang, Tuo Dai, Bin Cui, and Xiaoming Li. SSS: An Accurate and Fast Algorithm for Finding Top-k Hot Items in Data Streams. In *2018 IEEE International Conference on Big Data and Smart Computing* (**BigComp 2018**).

HONORS AND AWARDS

Pacemaker to Merit Student (top 1%)	*2017*
Arawana Scholarship (highest monetary value scholarship)	*2017*
Merit Student (top 5%)	*2015, 2016*
Canon Scholarship (top 5%)	*2016*
Fang Zheng Scholarship (top 5%)	*2015*
First Prize Chinese Physics Olympiad in Provinces (top 1%)	*2014*

SERVICE

TPC member of IEEE ICC 2018

PC member of workshop on networking algorithms at IEEE Infocom 2020