Mehrnoosh Shafiee

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EDUCATION

Columbia University   Jan.2016-present
Ph.D., Department of Electrical Engineering
Thesis Title: "Resource-allocation in large-scale distributed systems"
Adviser: Prof. Javad Ghaderi
GPA: 4.16/4.00

Columbia University   Sep.2014-Jan.2016
M.Sc., Department of Electrical Engineering
Adviser: Prof. Javad Ghaderi
GPA: 4.23/4.00

Sharif University of Technology   Sep.2009-Jul.2014
B.Sc., Department of Electrical Engineering
Minor, Department of Physics
Thesis Title: "Scheduling in LTE systems"
Adviser: Prof. Farid Ashtiani
GPA: 18.02/20

HONOR AND AWARDS

- Ranked 1st in Ph.D. Qualifying Exam, Electrical Engineering Department, Columbia University.
- Columbia University Masters Award of Excellence.
- Recipient of ACM SIGARCH, SPAA Student Travel Grant.
- Recipient of IEEE INFOCOM Student Travel Grant.
- Selected to participate Grad Cohort Workshop CRA-W.
- Full-Funded Summer Internship by Hong Kong University of Science and Technology (HKUST).
- Gold Medal in International Olympiad on Astronomy and Astrophysics.
- Gold Medal in National Olympiad on Astronomy, Iran.
- Iranian National Elite Foundation Level One Scholarship, Iran.

RESEARCH INTERESTS

I am broadly interested in the analysis and design of resource allocation algorithms for large-scale distributed systems, instances include: flow scheduling and load balancing in datacenter networks, job scheduling and virtual machine packing in cloud systems.

Other Research interests include
- Game Theory and Social Networks
- Wireless and Communication Networks
- Deep Learning and Natural Language Processing

PUBLICATIONS M. Shafiee, J. Ghaderi, "A Simple Congestion-Aware Algorithm for Load Balancing in Datacenter Networks", *Proceedings of IEEE INFOCOM 2016-The 35th Annual IEEE International Conference on Computer Communications, pg. 1-9.*

M. Shafiee, J. Ghaderi, "A Simple Congestion-Aware Algorithm for Load Balancing in Datacenter Networks", *Accepted in IEEE/ACM Transactions on Networking, 2017.*

M. Shafiee, J. Ghaderi, "Scheduling Coflows in Datacenter Networks: Improved Bound for Total Weighted Completion Time", *Proceedings of the 2017 ACM SIGMETRICS/International Conference on Measurement and Modeling of Computer Systems. p.g 29-30.*

M. Shafiee, J. Ghaderi, "Brief Announcement: A New Improved Bound for Coflow Scheduling", *Proceedings of the 29th ACM Symposium on Parallelism in Algorithms and Architectures 2017 (SPAA'17), pg. 91-93.*

M. Shafiee, J. Ghaderi, "An Improved Bound for Minimizing the Total Weighted Completion Time of Coflows in Datacenters", *Submitted to IEEE/ACM Transactions on Networking, 2017.*

WORK AND TEACHING EXPERIENCES

- Research Intern at OATH, Summer 2017. We studied a specific NLP problem and submitted the result as a research paper to a conference.
- Teaching Assistant for the course "Network Algorithms and Dynamics", Electrical Engineering Department, Columbia University, Spring 2015 and 2016
- Teaching Assistant for the course "Communication Networks", Electrical Engineering Department, Columbia University, Fall 2014 and 2015
- Research Intern in Center for Wireless Information Technology (CenWIT), Hong Kong University of Science and Technology (HKUST), Summer 2013
- Intern in Iran Telecommunication Research Center, Summer 2012
- Teaching topics in Astronomy and Astrophysics Olympiad, Iran, 2009-2013

COMPUTER SKILLS

MATLAB, R, C++
Tensorflow, Keras
Windows, Linux
LaTeX

GRADUATE COURSES

Topics in Queuing Theory (IEOR E8100), [current semester]
Analysis of Algorithm II (COMS E6232), [4.00/4.00]
Scheduling Algorithms (IEOR E8100), [3.66/4.00]
Optimization I (IEOR E6613), [3.66/4.00]
Optimization II (IEOR E6614), [4.33/4.00]
Stochastic Modeling I (IEOR E6711), [4.00/4.00]
Computer Communication Network (ELEN E6761), [4.33/4.00]
Convex Optimization for EE (EEOR E4650), [4.33/4.00]
Analysis of Algorithm I (CSOR W4231), [4.00/4.00]
Probability Theory (MATH W4155), [4.33/4.00]
Network Algorithm and Dynamics (ELEN E6909), [4.33/4.00]
Foundation of Graphical Model (STAT G6509), [3.66/4.00]
Machine Learning (COMS W4771), [4.33/4.00]