Haoqiang Huang

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EDUCATION BACKGROUNDS

University of Science and Technology of China (USTC, Project **985 & 211** Institution) Graduated in 07/2019

B.E. Computer Science and Technology Overall GPA: 3.36/4.0; **Major GPA: 3.63/4.0**

- Related Coursework: Algebraic Structure, Mathematical Logic, Stochastic Processes, Probability and Statistics, Graph Theory, Data Structures, Operating System, Principles and Techniques of Compiler, Foundations of Algorithms, Parallel Computing, An Introduction to Database Systems, Computer Networks, Computer Organization, Computer Architecture, Network Algorithmics
- Honors: 2017-2018 2nd Class Outstanding Student Scholarship

PUBLICATIONS

Liuyan Liu, **Haoqiang Huang (co-first author)**, Haisheng Tan, etc. *Online DAG Scheduling with On-demand Function Configuration in Edge Computing.* WASA 2019 (**Best Paper Award**) *DOI: 10.1007/978-3-030-23597-0_17*

Chi Zhang, Haisheng Tan, **Haoqiang Huang**, etc. *Online Dispatching and Scheduling of Jobs with Heterogeneous Utilities in Edge Computing.* Submitted to IEEE Conference on Computer Communications (IEEE INFOCOM 2020)

ACADEMIC EXPERIENCES

Research Intern at ITCS at Shanghai University of Finance and Economics 08/2019 - 02/2020

- Studied literature in the field of Algorithmic Game Theory and Mechanism Design
- Analyzed incentive ration in manipulating behavior in Probabilistic Serial Rule
- Attempted to construct Multi-unit Auction Mechanism without price discrimination to maximize the revenue
- Designed algorithm and analyzed its performance for Online Bipartite Matching

Group Member in a Project of USTC Lab for Intelligent Networking and Knowledge Engineering 06/2018 - present

- The project aimed at working out some practical online algorithms to obtain effective task scheduling in mobile edge computing in arbitrary requests arrival and already had two papers published and one paper in submission.
- Proposed a novel scheduling problem formulation, employed the list scheduling methodology to propose an online heuristic algorithm (OnDoc) to schedule tasks when considering reconfiguration of edge server jointly, and demonstrated OnDoc's effectiveness and efficiency by conducting extensive simulation on the data-trace from Alibaba with Python.
- Participated in a discussion to propose a practical system model which can describe the diversity of user requests, and a novel scheduling problem formulation which considered user requests with multiple optimization objectives.
- Analyzed the complexity of the problem and figured out an online algorithm with rigorous theoretical performance guarantee by employing the speed augmentation model.
- Conducted extensive experiments on the testbed consisting of multiple Nvidia Jetson Nano's and 10 Raspberry Pi 3b's and demonstrated that the algorithm outperforms the other state-of-the-art baselines.
- Attempted to construct Robust Online scheduling strategy concerning to uncertainty of Processing time in real applications

Research Assistant in USTC Lab for Intelligent Networking and Knowledge Engineering 10/2017 - 07/2019

- Participated in a project to figure out highly practical tasking scheduling strategies for mobile edge computing.
- Organized computational theory study group within the lab and studied relevant theories of approximation algorithms and combinatorial optimization during regular lab research seminar.

SKILLS HIGHLIGHT

C/C++, Python, SQL, Java, Verilog, Qt, MATLAB, CSS, JavaScript | LaTeX, Visio, Git, HTML | Redis, Flask | Docker