



# Yu Chen

PhD Candidate, Department of Computer Science and Technology, Nanjing University

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## Research Interests

My main research interests include video analytics in edge computing, crowdsourcing and continual learning.

## Education

### Ph.D. in Distributed Computing Lab., Department of Computer Science and Technology

Advisor: Associate Prof. Sheng Zhang and Prof. Sanglu Lu. Nanjing, Jiangsu, China

- Rank 1st in Qualification Examination for Doctoral Students (1/42)

**Nanjing University**

2019.09 - Now

### B.S. in Department of Computer Science and Technology

Advisor: Associate Prof. Sheng Zhang. Nanjing, Jiangsu, China

- Obtain Postgraduate Qualification without Entrance Examination

**Nanjing University**

2015.09 - 2019.06

## Honors & Awards

### 2019.09 - Now

- 2022 National Scholarship for Doctoral Students
- 2022 Excellent Postgraduate Pacesetter of Nanjing University
- 2021 Xinhua News Agency Scholarship
- 2020 Postgraduate Merit Scholarship of Nanjing University
- 2020 Excellent Member of the Communist Youth League of Nanjing University
- 2019 Principal's Special Scholarship of Nanjing University
- 2019 Excellent Postgraduate Student of Nanjing University

### 2015.09 - 2019.06

- 2019 Excellent Graduate of Nanjing University
- 2018 People's Scholarship of Nanjing University
- 2018 Silver Award in the 15th Programming Contest of Nanjing University
- 2017 Virtue Star Scholarship in Computer Science of Nanjing University
- 2017 Silver Award in the 14th Programming Contest of Nanjing University
- 2016 People's Scholarship of Nanjing University

## Publications

### CONFERENCE

- 2023 **[C.8]** Mingtao Ji, Chenwei Su, Yuting Yan, Zhuzhong Qian, **Yu Chen**, Yibo Jin, Sheng Zhang, and Baoliu Ye. INTView: Adaptive Planner for In-Band Network Telemetry without Detours. In: Proceedings of IEEE International Conference on Communications (ICC 2023, CCF-C), 2023
- [C.7]** **Yu Chen**, Sheng Zhang, Yuting Yan, Yibo Jin, Ning Chen, Mingtao Ji and Mingjun Xiao. *Crowd<sup>2</sup>*: Multi-agent Bandit-based Dispatch for Video Analytics upon Crowdsourcing. IEEE Annual International Conference on Computer Communications (INFOCOM 2023, CCF-A), 2023
- [C.6]** Ning Chen, Shuai Zhang, Sheng Zhang, Yuting Yan, **Yu Chen** and Sanglu Lu. ResMap: Exploiting Sparse Residual Feature Map for Accelerating Cross-Edge Video Analytics. IEEE Annual International Conference on Computer Communications (INFOCOM 2023, CCF-A), 2023
- 2022 **[C.5]** **Yu Chen**, Sheng Zhang, Yibo Jin, Zhuzhong Qian, and Sanglu Lu. Multi-server multi-user game at edges for heterogeneous video analytics. In: Proceedings of IEEE International Conference on Communications (ICC 2022, CCF-C), 2022

**[C.4] Yu Chen**, Sheng Zhang, Yibo Jin, Zhuzhong Qian, Mingjun Xiao, Ning Chen and Zhi Ma. Learning for Crowdsourcing: Online Dispatch for Video Analytics with Guarantee. IEEE Annual International Conference on Computer Communications (INFOCOM 2022, **CCF-A**), Virtual Conference, 2022

2020 **[C.3] Yu Chen**, Sheng Zhang, Mingjun Xiao, Zhuzhong Qian, Jie Wu and Sanglu Lu. Multi-user Edge-assisted Video Analytics Task Offloading Game based on Deep Reinforcement Learning. IEEE International Conference on Parallel and Distributed Systems (ICPADS 2020, **CCF-C**), 2020

**[C.2]** Can Wang, Sheng Zhang, **Yu Chen**, Zhuzhong Qian, Jie Wu and Mingjun Xiao. Joint Configuration Adaptation and Bandwidth Allocation for Edge-based Real-time Video Analytics. IEEE Annual International Conference on Computer Communications (INFOCOM 2020, **CCF-A**), 2020

2019 **[C.1] Yu Chen**, Sheng Zhang, Yanchao Zhao, Zhuzhong Qian, Yu Liang, Jidong Ge and Sanglu Lu. Efficient VNF Migration and Recovery in Edge Computing Environments. ACM 48th International Conference on Parallel Processing (ICPP 2019, **CCF-B**), Poster, 2019

## **JOURNAL**

2022 **[J.3] Yu Chen**, Sheng Zhang, Yibo Jin, Zhuzhong Qian, and Sanglu Lu. Game Theory-based Algorithm for Multi-server Multi-user Video Analytics Task Offloading. Journal of Software (**CCF-A Chinese Scientific Journal**), 2022

**[J.2] Yu Chen**, Sheng Zhang, Yibo Jin, Zhuzhong Qian, Mingjun Xiao, Jidong Ge and Sanglu Lu. LOCUS: User-perceived Delay-aware Service Placement and User Allocation in MEC Environment. IEEE Transactions on Parallel and Distributed Systems (TPDS 2022, **CCF-A**), 2022

2020 **[J.1]** Yang Dai, **Yu Chen**, Yongjin Zhu and Sheng Zhang. Adaptive Video Analysis in Edge Computing. Journal of Computer Applications (**CCF-C Chinese Scientific Journal**), 2020

## **PATENT**

2022 **[P.1]** Pengju Jiao, Sheng Zhang, **Yu Chen** and Zhuzhong Qian. VNF Migration Method and Device and Storage Medium. Authorization Number: 112019368

## **Experience**

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### **EMPLOYMENT**

#### **Research Intern**

Mentor: Dr. Yu Zhou and Dr. Hongqiang Harry Liu. XG Laboratory, Damo Academy

**Alibaba**

2021.08 - 2022.05

- Research on Real-time Multimedia Communication

### **PARTICIPATED PROJECTS**

#### **Natural Science Foundation of China (NSFC) Project**

In the Charge of Associate Prof. Sheng Zhang and Prof. Sanglu Lu:

- Research on Resource Scheduling and Collaboration Technology for Multi-edge Cloud
- Research on Autonomous Cooperative Multimodal Sensing and Fusion Mechanism

### **SERVICES**

#### **Journal/Conference Reviewer**

Independently or Assisting my Advisor:

- 2020: MSN'20, INFOCOM'20, DPCS'20
- 2021: TMC, INFOCOM'21
- 2022: MASS'22, CBD'22, INFOCOM'22

## **Skills**

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**Scientific Application:** Python, C, C++, Java, LaTeX, Git, PPT, EXCEL

**Language:** Chinese (Native), English (CET-6)