

AO WANG

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EDUCATION

- Ph.D. in Computer Science** August 2018 - Present
George Mason University, Fairfax, VA
Advisor: Dr. Yue Cheng
- M.S. in Computer Science** May 2018
George Washington University, Washington, D.C
GPA: 3.7
- B.S. in Computer Science** June 2016
Yunnan University, Kunming, China

RESEARCH INTEREST

My research interests include cloud computing, serverless computing, and cloud storage. Currently, I am working on a project about how to build a distributed computing system fully on top of serverless computing, which could achieve cost-effectiveness and high performance.

WORK EXPERIENCE

- **Research Intern**, Alibaba Cloud, Function Compute team. 08/2020 - present
- **Graduate Research Assistant**, Department of Computer Science, George Mason University, Fairfax VA, USA. 05/2019 - 08/2020
- **Graduate Teaching Assistant**, Department of Computer Science, George Mason University, Fairfax VA, USA. 08/2018 - 05/2019

PUBLICATIONS

1. Benjamin Carver, Jingyuan Zhang, **Ao Wang**, Ali Anwar, Panruo Wu, Yue Cheng, “**Wukong: A Scalable and Locality-Enhanced Framework for Serverless Parallel Computing**”, ACM Symposium on Cloud Computing 2020 (SoCC 2020).
2. **Ao Wang**, Jingyuan Zhang, Xiaolong Ma, Ali Anwar, Lukas Rupperecht, Dimitrios Skourtis, Vasily Tarasov, Feng Yan, Yue Cheng, “**InfiniCache: Exploiting Ephemeral Serverless Functions to Build a Cost-Effective Memory Cache**”, in Proceedings of the 18th USENIX Conference on File and Storage Technologies (FAST 2020), Santa Clara, CA, USA, Feb, 2020.
3. Benjamin Carver, Jingyuan Zhang, **Ao Wang**, Yue Cheng, “**In Search of a Fast and Efficient Serverless DAG Engine**”, 4th international Parallel Data System Workshop (PDSW 2019), Denver, CO, USA, Nov. 2019.
4. Jingyuan Zhang, **Ao Wang**, Min Li, Yuan Chen, Yue Cheng, “**HyperFaaS: A Truly Elastic Serverless Computing Framework**”, USENIX NSDI 2019 (Poster), Boston, MA, USA, Feb, 2019.

PROJECTS

InfiniCache: Exploiting Ephemeral Serverless Functions to Build a Cost-Effective Memory Cache

Fall 2019, GMU

- Built an cost-effective, high performance in-memory object cache which is fully atop ephemeral cloud functions.
- InfiniCache is 31x cheaper than traditional cloud cache services.

Benchmarking Serverless Computing Platforms for Fun and Profit

Spring 2019, GMU

- Investigated the characteristics (Elasticity, Cost-efficiency) and benchmarked the performance of state-of-the-art serverless platforms such as AWS Lambda and Google Cloud Function.

Car's Model Classification

Fall 2018, GWU

- Designed the model by using CNN with the AlexNet and VGG-19 Model. Retrained the last one fully connected layer of the VGG-19 to match the car's data-set.
- Pre-processed the Cars Data-set from Stanford. The accuracy of the classify result is around 80%.

Color Propagation for Graph Connectivity

Spring 2017, GWU

- Developed an algorithm to detect Bi-connected component based on BFS method in the graph.
- Applied color propagation toward the Bi-CC in graph.

AWARDS

- Student Travel Grant, USENIX FAST 2020
- Student Travel Grant, USENIX NSDI 2019
- Honorable Mention in 2015 Mathematical Contest in Modeling & Interdisciplinary Contest in Modeling (MCM/ICM)

PROFESSIONAL ACTIVITIES

- EuroSys 2020 Shadow PC