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

- Graduate Research Assistant, Department of Computer Science, George Mason University, Fairfax VA, USA.
- Graduate Teaching Assistant, Department of Computer Science, George Mason University, Fairfax VA, USA.

PUBLICATIONS

- Ao Wang, Jingyuan Zhang, Xiaolong Ma, Ali Anwar, Lukas Rupprecht, 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.
- 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.
- 3. 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.

• 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