Chun-Feng Wu

Curriculum Vitae

PERSONAL DETAILS

Mail	cfwu@iis.sinica.edu.tw
Program	Computer Science & Information Engineering

EDUCATION

Ph.D. Candidate Department of CSIE 2016-NOW
GPA: 4.15/4.30
National Taiwan University, Taiwan
Advisor: Tei-Wei Kuo & Yuan-Hao Chang
Thesis: Process-Aware Resource Management for Low Cost Unified Memory System (Ongoing)

MSc. Department of Computer Science 2014-2016
GPA: 3.90/4.30
National Tsing Hua University, Taiwan
Advisor: Yeh-Ching Chung
Thesis: Hybrid Mechanisms to Improve Write Scenarios for Cloud Storage Services

BSc. Department of CSIE 2010-2014
GPA: 3.72/4.0
National Central University, Taiwan
Advisor: Li-Der Chou

PUBLICATIONS

Journal Papers

1. **Chun-Feng Wu**, Yuan-Hao Chang, Ming-Chang Yang, and Tei-Wei Kuo, "Joint Management of CPU and NVDIMM for Breaking Down the Great Memory Wall," , accepted and to appear in IEEE Transactions on Computers (TC).
2. **Chun-Feng Wu**, Ming-Chang Yang, Yuan-Hao Chang, and Tei-Wei Kuo, "Hot-Spot Suppression for Resource-Constrained Image Recognition Devices with Non-Volatile Memory" , IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), vol. 37, no. 11, pp. 2567-2577, Nov. 2018. (Integrated with ACM/IEEE EMSOFT 2018)

Conference Papers

1. Shuo-Han Chen, Yu-Pei Liang, Yuan-Hao Chang, Yun-Fei Liu, **Chun-Feng Wu**, Hsin-Wen Wei, and Wei-Kuan Shih, "Reinforcing the Energy Efficiency of Cyber-Physical Systems via Direct and Split Cache Consolidation on MLC STT-RAM" , ACM Symposium on Applied Computing (SAC), Brno, Czech Republic, Mar. 30 - Apr. 3, 2020.
2. Yu Ting Ho, **Chun-Feng Wu**, Ming-Chang Yang, and Yuan-Hao Chang, "Replanting Your Forest: NVM-friendly Bagging Strategy for Random Forest" , IEEE Nonvolatile Memory Systems and Applications Symposium (NVMSA), Hangzhou, China, August 18-21, 2019 (Best Paper Award)
3. Shuo-Han Chen, Ming-Chang Yang, Yuan-Hao Chang, and **Chun-Feng Wu**, "Enabling File-Oriented Fast Secure Deletion on Shingled Magnetic Recording Drives" , ACM/IEEE Design Automation Conference (DAC), Las Vegas, Nevada, USA, Jun. 2-6, 2019. (Top Conference)
4. **Chun-Feng Wu**, Ming-Chang Yang, Yuan-Hao Chang, and Tei-Wei Kuo, "Hot-Spot Suppression for Resource-Constrained Image Recognition Devices with Non-Volatile Memory" ,

ACM/IEEE International Conference on Embedded Software (EMSOFT), Torino, Italy, Sep. 30 - Oct. 5, 2018. (Journal Track, Integrated with IEEE TCAD) (Top Conference)

5. **Chun-Feng Wu**, Ming-Chang Yang, and Yuan-Hao Chang, "Improving Runtime Performance of Deduplication System with Host-Managed SMR Storage Drives", ACM/IEEE Design Automation Conference (DAC), San Francisco, USA, Jun. 24-28, 2018. (Top Conference)
6. **Chun-Feng Wu**, Tse-Chuan Hsu, Hongji Yang, and Yeh-Ching Chung, "File Placement Mechanisms for Improving Write Throughputs of Cloud Storage Services Based on Ceph and HDFS", Proceedings of IEEE International Conference on Applied System Innovation (ICASI), Sapporo, Japan, May 2017. (The First Prize Paper Award)
7. Su-Shien Ho, **Chun-Feng Wu**, Jiazheng Zhou, Wenguang Chen, Ching-Hsien Hsu, Hung-Chang Hsiao, and Yeh-Ching Chung. "Distributed Metaserver Mechanism and Recovery Mechanism Support in Quantcast File System", IEEE Computer Software and Applications Conference (COMPSAC), pages 758 - 763, Taichung, Taiwan, July. 2015.

PROJECTS

Research Assistant 2017-NOW

Academia Sinica, Computer System Laboratory, Advisor: Yuan-Hao Chang

Conduct researches, evaluations, or implementations related to computer systems such as storage systems, memory systems, embedded systems, computer architecture, energy-efficient designs, multi-core/many-core systems, and neuromorphic computing systems.

SSBox(NebulaBox) 2014-2016

National Tsing Hua University, Sytem Software Laboratory, Advisor: Yeh-Ching Chung

This project aims to provide a private cloud storage service for users. Our team designs a distributed storage system, SSBox, with high accessibility and reliability. We provide PaaS layer services for programmers to access our SSBox by RESTful API. In addition, SSBox is reliable enough to endure hundred of thousand of users to access simultaneously.

Virtual Desktop Infrastructure 2014-2015

National Tsing Hua University, System Software Laboratory, Advisor: Yeh-Ching Chung

This project aims to provide Virtual Desktops to cost down the hardware price for educational institutes. We apply a real-time virtual desktop service by using virtualization frameworks, such as OpenStack and Docker. Users just need a browser and stable Internet for accessing different Operating Systems. We also design a client side by OpenStack APIs and this design makes users to create virtual desktops easier.

SKILLS

Programming Languages

C/C++, Python, Java, Objective-C, C#, Parallel Programming(MPI), PHP, JavaScript

Tools

Docker, OpenStack, Hadoop, Ceph(Thesis), PostgreSQL, Redis, Intel Pin, Valgrind

English Certification

TOEFL: 95

AWARDS

1. **Scholarship** in "Student Travel Grants" sponsored by Embedded Systems Week (ESWEEK), 2018.
2. **Scholarship** in "Outstanding Students Conference Travel Grant" sponsored by Foundation for the Advancement of Outstanding Scholarship(傑出人才發展基金會), 2018.
3. **Scholarship** in "The international conference scholarship for young researchers" sponsored by Academia Sinica, 2018.
4. **Top 10%, A-** in "Collegiate Programming Examination" held by ACM-ICPC Contest Council for Taiwan, 2013.
5. **Best Debater Award** in debate competition on "The future of virtual machine software: Xen vs VMware" held in Professor Li-Der Chou's course of "Operating Systems", Department of Computer Science, National Central University Taiwan, 2013.