

Soramichi Akiyama

RESEARCHER, ARTIFICIAL INTELLIGENCE RESEARCH CENTER, AIST

2-4-7, Aomi, Koto, Tokyo 135-0064, Japan

✉ s.akiyama@aist.go.jp | 🌐 <http://www.soramichi.jp/>

Education

Graduate School of Information Science and Technology, The University of Tokyo

Tokyo, Japan

PH.D. IN INFORMATION SCIENCE AND TECHNOLOGY

April 2012 - March 2015

- Supervisor: Prof. Shinichi Honiden
- Thesis: "Reducing Energy Consumption of Data Centers by Improving Virtual Machine Live Migration"

Graduate School of Information Science and Technology, The University of Tokyo

Tokyo, Japan

M.Sc. IN INFORMATION SCIENCE AND TECHNOLOGY

April 2010 - March 2012

- Supervisor: Prof. Shinichi Honiden

School of Informatics and Mathematical Science, Kyoto University

Kyoto, Japan

BACHELOR OF ENGINEERING

April 2006 - March 2010

- Supervisor: Prof. Hiroshi G. Okuno

Experience

National Institute of Advanced Industrial Science and Technology (AIST)

Tokyo, Japan

RESEARCHER, ARTIFICIAL INTELLIGENCE RESEARCH CENTER

November 2015 - NOW

**I was tentatively a post-doc for a month, and then I've been working as a full-time researcher*

Nippon Telegraph and Telephone (NTT)

Tokyo, Japan

RESEARCH ENGINEER, SOFTWARE INNOVATION CENTER

April 2015 - October 2015

Microsoft Research

Redmond, WA, US

RESEARCH INTERN, ORLEANS PROJECT

May 2013 - August 2013

National Institute of Advanced Industrial Science and Technology (AIST)

Tsukuba, Japan

INTERN, INFORMATION TECHNOLOGY RESEARCH INSTITUTE

July 2011 - August 2011

Academic Activities

- 2018 **Program Co-Chair**, The 7th IEEE Non-Volatile Memory Systems and Applications Symposium (NVMSA'18)
- 2018 **Publicity Chair (for Asia Region)**, The European Conference on Computer Systems (EuroSys'18)
- 2017 **External Reviewer**, 13th IEEE International Conference on e-Science (eScience'17)
- 2017 **External Reviewer**, The 6th IEEE Non-Volatile Memory Systems and Applications Symposium (NVMSA'17)
- 2017 - **Committee Member**, Special Interest Group of Operating Systems, Information Processing Society of Japan
- 2015 - **External Reviewer**, IEEE Transactions on Cloud Computing (TCC)
- 2010 - **Member**, Special Interest Group of Operating Systems, Information Processing Society of Japan

Honors & Awards

- 2015 **Dean's Award**, Graduate School of Information Science and Technology, The University of Tokyo
- 2013 **Research Fellowship for Young Scientists**, Japan Society for the Promotion of Science
- 2012 **Computer Science Research Award for Young Scientists**, Information Processing Society of Japan
- 2011 **Best Paper Award**, 23rd Computer Systems Symposium (ComSys)
- 2011 **Best Student Poster/Demonstration Award**, 23rd Computer Systems Symposium (ComSys)

Refereed Publications

Towards Write-back Aware Software Emulator for Non-Volatile Memory

ATSUSHI KOSHIBA, TAKAHIRO HIROFUCHI, [SORAMICHI AKIYAMA](#), RYOUSEI TAKANO, MITARO NAMIKI

August 2017

The 6th IEEE Non-Volatile Memory Systems and Applications Symposium (NVMSA), pp. 1 - 6

Quantitative Evaluation of Intel PEBS Overhead for Online System-Noise Analysis

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI

June 2017

7th International Workshop on Runtime and Operating Systems for Supercomputers (ROSS), co-located with HPDC, pp. 3:1 - 3:8

Performance Prediction of Memory Access Intensive Apps with Delay Insertion: A Vision

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI, HIROTAKA OGAWA

December 2016

8th IEEE International Conference on Cloud Computing Technology and Science (CloudCom), pp. 492 - 496

Fast Live Migration for IO-Intensive VMs with Parallel and Adaptive Transfer of Page Cache via SAN

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI, RYOUSEI TAKANO, SHINICHI HONIDEN

December 2016

IEICE Transactions on Information and Systems, Vol. E99-D, No. 12, pp. 3024 - 3034

Optimizing Distributed Actor Systems for Dynamic Interactive Services

ANDREW NEWELL, GABRIEL KLIOT, ISHAI MENACHE, ADITYA GOPALAN, [SORAMICHI AKIYAMA](#), MARK SILBERSTEIN

April 2016

Proc. of The European Conference on Computer Systems (EuroSys), pp. 38:1 - 38:15

Evaluating Impact of Live Migration on Data Center Energy Saving

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI, SHINICHI HONIDEN

December 2014

6th IEEE International Conference on Cloud Computing Technology and Science (CloudCom), pp. 759 - 762

Fast Live Migration with Small IO Performance Penalty by Exploiting SAN in Parallel

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI, RYOUSEI TAKANO, SHINICHI HONIDEN

June 2014

The 2014 IEEE 7th International Conference on Cloud Computing (IEEE CLOUD), pp. 40 - 47

Fast Wide Area Live Migration with a Low Overhead Through Page Cache Teleportation

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI, RYOUSEI TAKANO, SHINICHI HONIDEN

May 2013

The 13th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), pp. 78 - 82

MiyakoDori: A Memory Reusing Mechanism for Dynamic VM Consolidation

[SORAMICHI AKIYAMA](#), TAKAHIRO HIROFUCHI, RYOUSEI TAKANO, SHINICHI HONIDEN

June 2012

The 2012 IEEE 5th International Conference on Cloud Computing (IEEE CLOUD), pp. 606 - 613

Talks

Goplane: Open Source BUM-less Networking for Large Scale Docker Deployment

[SORAMICHI AKIYAMA](#)

August 2015

ContainerCon North America 2015 (in conjunction with LinuxCon North America 2015)

Fast Live Migration for Data-intensive VMs by Exploiting Storage Area Network in Datacenter

[SORAMICHI AKIYAMA](#)

May 2014

LinuxCon Japan 2014 (LinuxCon Staging Session)

Acceleration of Virtual Machine Live Migration on QEMU/KVM by Reusing VM Memory

[SORAMICHI AKIYAMA](#)

June 2012

LinuxCon Japan 2012 (Student Presentations Track)

Skills

- Expertise** Virtualization, Operating System, Cloud Computing, HPC for AIs
- Programming** C, C++, Python
- Languages** English, Japanese