Samer Al-Kiswany

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PEng.

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Education

- PhD, Electrical and Computer Engineering, University of British Columbia (July 2013)
- MSc, Electrical and Computer Engineering, University of British Columbia (Dec. 2007)
- BSc, Computer Engineering, Jordan University of Science and Technology (June 2003)

Experience

▪ *Associate Professor. University of Waterloo,* School of Computer Science.	July ’22 – present
▪ *Research Lead Next Generation Networking*, Acronis	Sept. ’22 – Oct. ’23
▪ *Assistant Professor. University of Waterloo,* School of Computer Science.	Oct. ’16 – July ’22
▪ *Postdoc. University of Wisconsin-Madison,* Computer Sciences Department.	Nov. ’13 – Aug. ’16
▪ *Research Intern. Microsoft Research,* Mountain View, CA.	Apr. ’13 – July ’13
▪ *Research Intern. NEC Laboratories America,* Cupertino, CA.	June ’12 – Oct. ’12
▪ *Software Egineering Intern. Microsoft,* Redmond, WA.	June ’11 – Aug. ’11
▪ *Research Intern. IBM Almaden Research Center,* San Jose, CA.	June ’10 – Oct. ’10
▪ *Research Intern. Argonne National Laboratory,* Chicago, IL.	May ’08 – Sep. ’08
▪ *Research Assistant at UBC*.	Sept. ’06 – Dec. ’13
▪ *Research Associate. Jordan University of Science and Technology,* Jordan.	June ’05 – June ’06
▪ *Network and Database Admin*., King Abdullah University Hospital	Feb. ’03 – Sept. ’03

Awards, Honors, and Competitions

▪ Elevated to the rank of *ACM Senior Member*	May. ’22
▪ Elevated to the rank of *IEEE Senior Member*	Jun. ’19
▪ Best UWaterloo CS Paper Award	Dec. ’18
▪ *NSERC Postdoctoral Fellowship* National award, Value: $40,000/year for 2 years. I ranked 4th Canada-wide (success rate of 8%).	Apr. ’13 – Aug. ’15
▪ *Best Talk Award at the ECE Department Systems Workshop*	Sep. ’11
▪ *Best Talk Award at ACM HPDC ‘11 conference*	Jun. ’11
▪ *Killam Doctoral Fellowship* National award, Value: $29,500/year + tuition, for 3 years.	Sep. ’09 – Jan ’12

- *BC Industrial Innovation PhD Fellowship* — Sep. '07 – Sep '10
  Provincial award, Value: $20,000/year + tuition, for 3 years
- *Second place in IBK Ivey Business Plan Competition* — Mar. '09
  Canada's premier competition for commercializable innovative ideas. Value: $10,000
- *ACM-IEEE George Michael Memorial HPC Fellowship Award* — Nov. '08
  International award.
- *UBC University Graduate Fellowship* — Jun. '08 – Jun. '09
  UBC award, Value: $16,000 + tuition
- *Second place in the BCNET Broadband Innovation Challenge Competition* — Apr. '08
  Provincial competition. Value: $2000
- *JUST University Graduate Fellowship* — Sep. '04 – Sep. '09
  National award, Value: $20,000/year for 5 years
- *Ministry of Education Excellence Scholarship* — Sep. '98 – Jun. '03
  National award, Value: tuition for 5 years.

Publications

The list includes the Microsoft Academic Search (MAS) ranking of the corresponding venues. Compared to other rankings MAS most accurately reflects the prestige of the venues as perceived in the research community. Conference acceptance rates are indicated when publicly available.

Key Conference Papers

[1] *LoLKV: The Logless Linearizable Key-Value Storage System,* A. Alquraan, S. Udayashankar, V. Marathe, B. Wong, S. Al-Kiswany, USENIX Symposium on Networked Systems Design and Implementation (NSDI), Apr. 2024 — **NSDI** MAS top 1%

[2] *CASPR: Connectivity-Aware Scheduling for Partition Resilience,* S. Qunaibi, S. Udayashankar, S. Al-Kiswany, International Symposium on Reliable Distributed Systems (SRDS), 2023. **Nominated for Best Paper Award.** — **SRDS** MAS top 3%

[3] *Toward a Generic Fault Tolerance Technique for Partial Network Partitioning*, M. Alfatafta, B. Alkhatib, A. Alquraan, S. Al-Kiswany, USENIX Sym. on Operating Systems Design and Implementation. 2020. — **OSDI** MAS top 1% Accept. rate 16%

[4] *FLAIR: Accelerating Reads with Consistency-Aware Network Routing*, H. Takruri, I. Kettaneh, A. Alquraan, S. Al-Kiswany. USENIX Symposium on Networked Systems Design and Implementation (NSDI). 2020. — **NSDI** MAS top 1% Accept. rate 18%

[5] *An Analysis of Network-Partitioning Failures in Cloud Systems*. A. Alquraan, H. Takruri, M. Alfatafta, S. Al-Kiswany, USENIX Symposium on Operating Systems Design and Implementation (OSDI). 2018.
Best UWaterloo CS paper award for 2018. — **OSDI** MAS top 1% Accept. rate 18%

[6] *NICE: Network-Integrated Cluster-Efficient Storage*, S. Al-Kiswany, S. Yang, A. Arpaci-Dusseau, R. Arpaci-Dusseau, ACM Symposium on High Performance Distributed Computing (HPDC), 2017. — **ACM HPDC** MAS top 2% Accept. rate 18%

[7] *Split-Level I/O Scheduling,* S. Yang, T. Harter, N. Agrawal, S. Kowsalya, A. Krishnamurthy, S. Al-Kiswany, A. Arpaci-Dusseau, R. Arpaci-Dusseau, ACM Symposium on Operating Systems Principles (SOSP '15), Oct. 2015. — **SOSP** MAS top 1% Accept. rate 16%

[8] *All File Systems Are Not Created Equal: On the Complexity of Crafting Crash-Consistent Applications,* T. Pillai, V. Chidambaram, R. Alagappan, S. Al-Kiswany, R. Arpaci-Dusseau, A. Arpaci-Dusseau, Symposium on Operating Systems Design and Implementation (OSDI '14), Oct. 2014. **OSDI** MAS top 1% Accept. rate 18%

[9] *Physical Disentanglement in a Container-Based File System,* L. Lu, Y. Zhang, T. Do, S. Al-Kiswany, A. Arpaci-Dusseau, R. Arpaci-Dusseau, Symp. on Operating Systems Design and Implementation (OSDI), Oct. 2014. **OSDI** MAS top 1% Accept. rate 18%

[10] *Supporting Storage Configuration for I/O Intensive Workflows,* L. Costa, S. Al-Kiswany, H. Yang, M. Ripeanu, ACM International Conference on Supercomputing (ICS '14), 191-200, June 2014. **ICS** MAS top 3% Accept. rate 21%

[11] *Cost Exploration of Data Sharings in the Cloud,* S. Al-Kiswany, H. Hacigumus, Z. Liu, J. Sankaranarayanan, International Conference on Extending Database Technology, 601-612, March 2013. **EDBT** MAS top 2% Accept. rate 20%

[12] *VMFlock: VM Co-Migration for the Cloud*, S. Al-Kiswany, D. Subhraveti, P. Sarkar, M. Ripeanu, ACM/IEEE Symposium on High Performance Distributed Computing (HPDC 2011), June, 2011. **Best Talk Award.** **ACM HPDC** MAS top 2% Accept. rate 13%

[13] *A GPU Accelerated Storage System*, A. Gharaibeh, S. Al-Kiswany, S. Gopalakrishnan, M. Ripeanu, ACM/IEEE Symposium on High Performance Distributed Computing (HPDC 2010), 167-178, Chicago, IL, June, 2010. **ACM HPDC** MAS top 2% Accept. rate 22%

[14] *A Case for Versatile Storage System*, S. Al-Kiswany, A. Gharaibeh, M. Ripeanu, Workshop on Hot Topics in Storage and File Systems (HotStorage), October, 2009. Also as ACM SIGOPS OS Review, January 2010. **HotStorage** Accept. rate 20%

[15] *StoreGPU: Exploiting Graphics Processing Units to Accelerate Distributed Storage Systems*, S. Al-Kiswany, A. Gharaibeh, E. Santos-Neto, G. Yuan, M. Ripeanu, ACM Symposium on High Performance Distributed Computing (HPDC), June, 2008. **ACM HPDC** MAS top 2% Accept. rate 17%

[16] *stdchk: A Checkpoint Storage System for Desktop Grid Computing*, S. Al-Kiswany, M. Ripeanu, S. Vazhkudai, A. Gharaibeh, Int. Conf. on Distributed Computing Systems (ICDCS), 613-624, June '08. **IEEE ICDCS** MAS top 1% Accept. rate 16%

[17] *Beyond Search and Navigability: Custom Metadata Can Enable Cross-Layer Optimizations in Storage Systems*, E. Santos-Neto, S. Al-Kiswany, N. Andrade, S. Gopalakrishnan, M. Ripeanu, ACM/IEEE Symposium on High Performance Distributed Computing (HPDC) - Hot Topics Track, June, 2008. **ACM HPDC** MAS top 2% Accept. rate 17%

Journal Publications

[18] *An Approach for Detecting Multi-Institution Attacks,* S. Zabarah, O. Naman, M. Salahuddin, R. Boutaba, S. Al-Kiswany, Annals of Telecommunications, 2023 **AofT** Impact factor: 1.9

[19] *Partial Network Partitioning,* Basil Alkhatib, Sreeharsha Udayashankar, Sara Qunaibi, Ahmed Alquraan, Mohammed Alfatafta, Wael Al-Manasrah, Alex Depoutovitch, Samer Al-Kiswany, ACM Transactions on Computer Systems, 2022 **TOCS** MAS top 1% Impact factor: 4.27

[20] *Network-Accelerated Consensus for Read Intensive Workloads,* Ibrahim Kettaneh, Ahmed Alquraan, Hatem Takruri, Ali Mashtizadeh, Samer Al-Kiswany, IEEE/ACM Transactions on Networking, Oct. 2021 **IEEE/ACM ToN** MAS top 1% Impact factor: 3.56

[21] *Scalable, Near-Zero Loss Disaster Recovery for Distributed Data Stores*, Ahmed Alquraan, Alex Kogan, Virendra Marathe, Samer Al-Kiswany, Proc. VLDB Endowment. Sept. 2020. (acceptance rate 16%) **VLDB** MAS top 1% Accept. rate 16% Impact factor: 2.9

[22] *The Network-Integrated Storage System*, I. Kettaneh, A. Alquraan, H. Takruri, S. Yang, A. Arpaci-Dusseau, R. Arpaci-Dusseau, S. Al-Kiswany. IEEE Transactions on Parallel and Distributed Systems (TPDS), Aug. 2019. **IEEE TPDS** MAS top 1% Impact factor: 2.6

[23] *A Cross-Layer Optimized Storage System for Workflow Applications*. S. Al-Kiswany, L. Costa, H. Yang, E. Vairavanathan, M. Ripeanu. J. on Future Generation Computer Systems. Feb 2017. **FGCS** Impact factor: 5.7

[24] *Crash Consistency,* T. Pillai, V. Chidambaram, R. Alagappan, S. Al-Kiswany, A. Arpaci-Dusseau, R. Arpaci-Dusseau, Communications of the ACM, 58(10): 46-51, October 2015. **CACM** MAS top 1% Impact factor: 7

[25] *Crash Consistency: Rethinking the Fundamental Abstractions of the File System,* T. Pillai, V. Chidambaram, R. Alagappan, S. Al-Kiswany, A. Arpaci-Dusseau, R. Arpaci-Dusseau, ACM Queue, 13(7), pages 9, July 2015. **ACM Queue**

[26] *Support for Provisioning and Configuration Decisions for Data Intensive Workflows,* L. Costa, S. Al-Kiswany, H. Yang, M. Ripeanu, IEEE Transactions on Parallel and Distributed Systems (TPDS), June 2015. **IEEE TPDS** MAS top 1% Impact factor: 2.6

[27] *The Case for Workflow-Aware Storage: An Opportunity Study*, L. Costa, A. Barros, H. Yang, G. Fedak, D. Katz, M. Wilde, E. Vairavanathan, M. Ripeanu, S. Al-Kiswany. Journal of Grid Computing, June 2014. JGC Impact factor: 1.6

[28] *GPUs as Storage System Accelerators*, S. Al-Kiswany, A. Gharaibeh, M. Ripeanu, IEEE Transactions on Parallel and Distributed Systems (TPDS), 24(8): 1556-1566, May 2012. **IEEE TPDS** MAS top 1% Impact factor: 2.6

[29] *ThriftStore: Finessing Reliability Tradeoffs in Replicated Storage Systems*, A. Gharaibeh, S. Al-Kiswany, M. Ripeanu, IEEE Transactions on Parallel and Distributed Systems (TPDS), 22(6): 910-923, April 2010. **IEEE TPDS** MAS top 1% Impact factor: 2.6

[30] *On GPU's Viability as a Middleware Accelerator*, S. Al-Kiswany, A. Gharaibeh, E. Santos-Neto, M. Ripeanu, Journal of Cluster Computing, Springer, 12(2): 123-140, 2009. JCC Impact factor: 2

[31] *Beyond Music Sharing: An Evaluation of Peer-to-Peer Data Dissemination Techniques in Large Scientific Collaborations*, S. Al-Kiswany, M. Ripeanu, A. Iamnitchi, S. Vazhkudai, J. of Grid Computing, 7(1): 91-114, April 2009. JGC Impact factor: 1.6

Other Refereed Conference and Workshop Papers

[32] *DedupBench: A Benchmarking Tool for Data Chunking Techniques*, Alan Liu, Abdelrahman Baba, Sreeharsha Udayashankar, Samer Al-Kiswany, IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), 2023.

[33] *MECBench: A Framework for Benchmarking Multi-Access Edge Computing Platforms*, Omar Naman, Hala Qadi, Martin Karsten, Samer Al-Kiswany, IEEE International Conference on Edge Computing (EDGE), 2023. (acceptance rate 17%).

[34] *A Study of Orchestration Approaches for Scientific Workflows in Serverless Computing*, Abdallah Elshamy, Ahmed Alquraan, Samer Al-Kiswany, The 1st Workshop on Serverless Systems, Applications and Methodologies (SESAME), 2023.

[35] *Soteria: An Approach for Detecting Multi-Institution Attacks*, Saif Zabarah, Omar Naman, Mohammad A. Salahuddin, Raouf Boutaba, Samer Al-Kiswany, Conference on Innovation in Clouds, Internet and Networks (ICIN), 2023

[36] *OrcBench: A Representative Serverless Benchmark*, Ryan Hancock, Sreeharsha Udayashankar, Ali José Mashtizadeh, Samer Al-Kiswany, In the Proceedings of IEEE International Conference on Cloud Computing (Cloud), July 2022.

[37] *Falcon – Low Latency, Network-Accelerated Scheduling*, Ibrahim Kettaneh, Sreeharsha Udayashankar, Ashraf Abdel-hadi, Robin Grosman, Samer Al-Kiswany, P4 Workshop in Europe (EuroP4), Dec. 2020

[38] *RocketBufs: A Framework for Building Efficient, In-Memory, Message-Oriented Middleware*, Huy Hoang, Ben Cassell, Tim Brecht, Samer Al-Kiswany, ACM International Conference on Distributed and Event-Based Systems (DEBS), July 2020.

[39] *COOL: A Cloud-Optimized Structure for MPI Collective Operations*, Mohammed Alfatafta, Zuhair AlSader, Samer Al-Kiswany, In the Proceedings of IEEE International Conference on Cloud Computing (Cloud), July 2018 (acceptance rate 20%)

[40] *A Software-Defined Storage for Workflow Applications*, S. Al-Kiswany, M. Ripeanu, IEEE Cluster Conference 2016, Sept. 2016. (acceptance rate 24%).

[41] *Interacting with Large Distributed Datasets Using Sketch*, M. Budiu, R. Isaacs, D. Murray, G. Plotkin, P. Barham, S. Al-Kiswany, Y. Boshmaf, Q. Luo, A. Andoni, Eurographics Symposium on Parallel Graphics and Visualization, 2016.

[42] *Active Data: A Data-Centric Approach to Data Life-Cycle Management*, A. Simonet, G. Fedak, M. Ripeanu, S. Al-Kiswany, Parallel Data Storage Workshop (PDSW), 39-44, Nov.'13.

[43] *Predicting Intermediate Storage Performance for Workflow Applications*, L. Costa, S. Al-Kiswany, A. Barros, H. Yang, M. Ripeanu, Parallel Data Storage Workshop, 33-38, Nov. '13.

[44] *A Workflow-Aware Storage System: An Opportunity Study*, E. Vairavanathan, S. Al-Kiswany, L. Costa, Z. Zhang, D. Katz, M. Wilde, M. Ripeanu, International Symposium on Clusters, Cloud, and Grid Computing (CCGrid), 326 – 334, May 2012.

[45] *Assessing Data Deduplication trade-offs from an Energy Perspective*, L. Costa, S. Al-Kiswany, M. Ripeanu, R. Lopes, Workshop on Energy Consumption and Reliability of Storage Systems (ERSS), 1-6, Orlando, FL, July, 2011

[46] *A Case for Versatile Storage System*, S. Al-Kiswany, A. Gharaibeh, M. Ripeanu, Workshop on Hot Topics in Storage and File Systems (HotStorage), October, 2009. Also appeared as ACM SIGOPS Operating Systems Review, 44(1):10-14, January 2010. (acceptance rate 20%)

[47] *GPU Support for Batch Oriented Workloads*, L. Costa, S. Al-Kiswany, M. Ripeanu, IEEE International Performance Computing and Communications Conf. (IPCCC), 231-238, Dec.'09.

[48] *Configurable Security for Scavenged Storage Systems*, A. Gharaibeh, S. Al-Kiswany, M. Ripeanu, 4th International Workshop on Storage Security and Survivability (StorageSS), 55-62, Alexandria, Virginia, October 2008.

[49] *Beyond Search and Navigability: Custom Metadata Can Enable Cross-Layer Optimizations in Storage Systems*, E. Santos-Neto, S. Al-Kiswany, N. Andrade, S. Gopalakrishnan, M. Ripeanu, ACM/IEEE Symposium on High Performance Distributed Computing (HPDC) - Hot Topics Track, Boston, MA, June, 2008. (acceptance rate 17%)

[50] *Are Peer-to-Peer Data-Dissemination Techniques Viable in Today's Data Intensive Scientific Collaborations?*, S. Al-Kiswany, M. Ripeanu, A. Iamnitchi, S. Vazhkudai. The 13th

International Euro-Par Conference, European Conference on Parallel and Distributed Computing, 4641: 404-414, Rennes, France, August, 2007.

[51] *A New Algorithm for Arabic Optical Character Recognition*, O. Al-Jarrah, S. Al-Kiswany, B. Al-Gharaibeh, M. Fraiwan, H. Khasawneh, WSEAS Transactions on Information Science and Applications, 4(3): 211-224, April 2006. (Undergraduate project)

Patents

[P1] *Virtual Machine Image Co-migration*, S. Al-Kiswany, C. Constantinescu, P. Sarkar, M. Seaman, D. Subhraveti, US patent. 8,442,955. Mar 2011.

[P2] *Deduplicated Virtual Machine Image Transfer,* S. Al-Kiswany, M. Ripeanu, Patent CA-821335-02-US-NAT, May 2012.

[P3] *Cost Exploration of Data Sharings in the Cloud,* S. Al-Kiswany, H. Hacigumus, Z. Liu, J. Sankaranarayanan. US patent US20140122374 A1, May 2014.

[P4] *System and Methods for Secure Deduplication of Encrypted Content*, S. Al-Kiswany, S. Udayashankar, A. Baba, S. Bell, S. Protasov. Provisional patent. 2023.

[P5] *System and Methods for Performing Network Accelerated Scheduling*, S. Al-Kiswany, S. Udayashankar, S. Bell, S. Protasov. Provisional patent. 2023.

[P6] Systems and Methods for Topology-Aware Scheduling, S. Al-Kiswany, S. Qunaibi, S. Udayashankar, S. Bell, S. Protasov. Provisional patent. 2023.

[P7] Systems and Methods for Testing Data Networks Using Injected Network Partitions, S. Al-Kiswany, S. Tayseer, S. Udayashankar, S. Bell, S. Protasov. Provisional patent. 2024.

[P8] Systems and Methods for Sequence-based Data Chunking for Deduplication, S. Al-Kiswany, S. Udayashankar, A. Baba, S. Bell, S. Protasov. Provisional patent. 2024.

Talks

- *Constructor University,* Germany, **Seminar**. Apr. 2023.
  Title: *On the Art of Wielding a Double-Edged Sword (or, Finessing Modern Networks)*
- *5GFF Workshop,* Virtual, **Seminar**. Mar. 2023.
  Title: *MECBench: A Framework for Benchmarking Multi-Access Edge Computing Platforms*
- *Rogers Leadership Workshop, University of Waterloo*, ON, Canada. **Invited Talk**. Mar. 2023.
  Title: *Architectural Alternatives for Multi Access Edge Computing (MEC)*
- *Rogers Workshop on 5G Partnerships and Innovation*, Brampton, ON, Canada. **Invited Talk**. Dec 2022.
  Title: *Architectural Alternatives for Multi Access Edge Computing (MEC)*
- *Future Network Frontiers – Canada DCN Workshop,* ON, Canada. **Invited Talk**. Nov. 2022
  Title: *Network-Accelerated Scheduling for Micro-Scale Workloads*
- *National Organization for Business and Engineering Conference*, **Panelist**, Oct. 2022.
- *Department of Electrical and Computer Engineering, University of British Columbia*, BC, Canada. **Seminar**, May. 2022
  Title: *On the Art of Wielding a Double-Edged Sword (or Finessing Modern Networks)*
- *Department Computer Science, Polytechnique Montréal,* QC, Canada. **Seminar**, Feb. 2022
  Title: *On the Complexity of Modern Network Failures*
- *Department Computer Science, University of Toronto,* ON, Canada, **Seminar**, Jan. 2022
  Title: *On the Complexity of Leveraging Modern Networks*
- *Huawei Data Center Networking Workshop,* ON, Canada, **Invited talk,** Nov. 2021.
  Title: *System/Network Co-Design for Higher Performance and Efficiency*

- *Huawei Strategy and Technology Workshop (STW)*, **Invited talk,** Oct. 2021.
  Title: *There is No Free Lunch: On the Complexity of Leveraging Modern Networks*
- *Huawei Data Center Network Research Lab,* ON, Canada, **Invited talk,** Aug. 2021.
  Title: *System/Network Co-Design Using Programmable Network Devices*
- *Dagstuhl Seminar on Serverless Computing,* **Panelist**, May 2021.
- *Workshop on High Availability and Observability of Cloud Systems (HAOC) @EuroSys '21,* **Invited talk**, Apr. 2021
  Title: On the Art of Wielding a Double-Edged Sword (or, Finessing Modern Networks),
- *Trends in HPC workshop,* **Invited talk**, Mar. 2021
  Title: Understanding Partial Network Partitioning
- *University of Cambridge, England*, Systems Group Seminar, **Invited talk,** Nov. 2020.
  Title: On the Art of Wielding a Double-Edged Sword (or, Finessing Modern Networks)
- *Huawei Research and Development,* ON, Canada, Cloud Unit, **Invited talk,** Nov. 2020.
  Title: On the Art of Wielding a Double-Edged Sword (or, Finessing Modern Networks)
- *Qatar Computing Research Institute,* **Invited talk,** Oct. 2020.
  Title: On the Art of Wielding a Double-Edged Sword (or, Finessing Modern Networks),
- *Ontario Engineering Society*, Toronto, Canada, **Panelist**, Dec. 2020
- *ACM High Performance Distributed Computing PC Workshop,* **Invited talk,** Mar. 2018.
  Title: Impact of Network Partitioning on Cloud Systems,
- *NetApp*, Lecture series, **Invited talk,** Sept. 2017.
  Title: NICE: Network Integrated Cluster Efficient Storage
- *ACM High Performance Distributed Computing PC Workshop,* **Invited talk,** Mar. 2017.
  Title: NICE: Network Integrated Cluster Efficient Storage
- *IBM Almaden Research Center*, USA, **Invited talk**, Feb. 2016.
  Title: The Old Systems and the Sea
- *Simon Fraser University*, Canada, System Engineering Seminar, **Invited talk**, Feb. 2016.
  Title: The Old Systems and the Sea
- *Colorado School of Mines*, USA, CS Seminar, **Invited talk**, Feb. 2016.
  Title: The Old Systems and the Sea
- *University of Victoria*, Canada, CS Seminar, **Invited talk**, Mar. 2016.
  Title: The Old Systems and the Sea
- *Florida International University*, USA, CS Seminar, **Invited talk**, Mar. 2016.
  Title: The Old Systems and the Sea
- *North Carolina State University*, USA, CS Seminar, **Invited talk**, Mar. 2016.
  Title: The Old Systems and the Sea
- *University of Waterloo*, Canada, CS Seminar, **Invited talk**, Apr. 2016.
  Title: The Old Systems and the Sea
- *Oak Ridge National Lab*, USA, CS Seminar, **Invited talk**, Apr. 2016.
  Title: The Old Systems and the Sea
- *University of Alberta*, Canada, CS Seminar, **Invited talk**, Apr. 2016.
  Title: The Old Systems and the Sea

Ph.D. Students

1. Ahmad Alquraan (Jan. ’19 -)
2. Sreeharsha Udayashankar (May. ’21 -)
3. Mu’men Al-Jarrah (Sept. ’22 -)
4. Abdelrahman Ba’ba’ (Jan. ’23 -)

Masters Students

1. Seba Khalil (Sept. ’21 -)
2. Rizwan Shahid (co-advised with Bernard Wong) (Sept. ’21 -)
3. Hala Qadi (Sept. ’22 -)

Past Graduate Students

1. Abdallah Elshamy, MMath, Dec. ’23.
2. Sara Qunaibi, MMath, May ’23.
3. Saif Zabarah (co-advised with Raouf Boutaba), MMath, Dec. ’22.
4. Wael Al-Manasrah, MMath, Dec. ’22.
5. Omar Naman, MMath, Dec. ’22 (Audesse)
6. Daniel Erhabor (co-advised with Mei Nagappan), MMath, Dec. ’22. (CSCF)
7. Ashraf Abdel-hadi, MMath, Aug. ’22 (Huawei Canada)
8. Basil Alkhatib, MMath, Aug. ’21 (Huawei Canada)
9. Sreeharsha Udayashankar, MMath, May. ’21 (PhD at UWaterloo)
10. Ibrahim Kettaneh, MMath, Apr. ’20 (Google)
11. Zuhair AlSader, MMath, Dec. ’19 (co-advised with Tim Brecht) (Seagate)
12. Mohammed Alfatafta, MMath, Dec. ’19 (Amazon)
13. Hatem Takruri, MMath, Sept. ’19 (Qlik)
14. Ahmed Alquraan, MMath, Dec. ’18 (PhD at UWaterloo)

Awards Received by My Students

- Ahmed Alquraan received an IBM PhD fellowship for 2021
- Ahmed Alquraan is a finalist (top 3 candidate worldwide) for the Facebook Fellowship (success rate < 1%)
- Saif Zabarah NSERC – Alexander Graham Bell Canada Graduate Scholarship 2021
- Basil Alkhatib and Omar Naman win the second place in the Hacking Hokey 5G Hackathon 2020
- Ahmed Alquraan receives the best student paper award from CS@UWaterloo for 2018

Service (selected)

- *Organizing committee member:*
  - Associate Editor at IEEE Transactions on Parallel and Distributed Systems (TPDS) (Oct. 2023 – present)
  - Languages, Architectures, and Tools for Heterogeneous Computing (LATHC) Workshop 2023.
  - Judge for the Fusion Conference competition (2021)
  - Review board member of IEEE Transactions on Parallel and Distributed Systems (2021-2023)
  - Publicity chair (SOSP ’19)
  - Travel awards chair (HPDC ’14)
- *Program committee member*:

- EuroSys (2024)
- Workshop on Serverless Data Analytics (SDA ’23)
- International Symposium on Reliable Distributed Systems (SRDS ’22, ’23)
- IEEE The International Conference on Distributed Computing Systems (ICDCS ’22, ’23)
- ACM Sym. on High-Performance Parallel and Distributed Computing (HPDC ’17, ’18, ’20, ’21, ’22, ’23, ’24)
- Languages, Architectures, and Tools for Heterogeneous Computing (LATHC ’22, ’23)
- ACM Workshop on Hot Topics in Storage and File Systems (HotStorage ’22)
- USENIX Conference on File and Storage Technologies (FAST ’21)
- ACM Asia-Pacific Workshop on Systems (APSys) (APSys ’21)
- ACM Symposium on Operating Systems Principles (SOSP ’19)
- International Conference on Massive Storage Systems and Technology (MSST ’19, ’20)
- IEEE International Symposium on the Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS ’17, ’18, ’19)
- IEEE International Conference on Software Defined Systems (SDS ’17, ’18, ’19)
- IEEE/ACM International Conference on Big Data Computing, Applications and Technologies (BDCAT ’16, ’17, ’18, ’19, ‘20, ‘21)
- IEEE International Conference on Cloud Computing Technology and Science (CloudCom) (’14, ’15, ’16, ’17)
- IEEE/ACM Big Data Computing (BDC ‘14 and ’15)
- Workshop on Scientific Cloud Computing (ScienceCloud) (’12, ’13, ’14, and ‘15)
- International Workshop on Data-Intensive Computing in the Clouds (DataCloud ’12, ’13, and ’14)
- IEEE International Conference on Parallel and Distributed Systems (ICPADS ’13)
- IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA ’12 and ’13)
- Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA ’13)
- External reviewer for numerous other conferences including ISPAS ’13, CCGrid ’13, EuroPar ’10, and VTDC ’09.

- *Reviewer for the following journals*:
  - ACM Operating System Reviews (OSR)
  - ACM/IEEE Transactions on Networking (ToN)
  - IEEE Transactions on Parallel and Distributed Systems (TPDS)
  - IEEE Transactions on Dependable and Secure Computing (TDSC)
  - IEEE Transactions on Multi-Scale Computing Systems (TMSCS)
  - IEEE Transactions on Cloud Computing (TCC)
  - IEEE Transactions on Computers (TC)
  - IEEE Transactions on Architecture and Code Optimization (TACO)
  - Journal of Cluster Computing (JCC)
  - Journal of Systems Architecture (JSA)
  - Journal of Parallel and Distributed Computing (JPDC)
  - Multiagent and Grid Systems (MGS)
- *Invited speaker* at the Sauder MBA School Entrepreneur Luncheon ’09.
- *Scribe* for the SOSP ’09 conference and LADIS ’09 workshop.
- *Student Volunteer* for the Supercomputing SC ’08, and ’07 conferences.
- *Volunteered* at the ECE department Open House ’07, and ’09.