

Curriculum Vitae of

Yin “David” Yang

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Division of Information and Computing Technologies
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Education

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| 2004-2009 | PhD in Computer Science
Supervisor: Prof. Dimitris Papadias
Hong Kong University of Science and Technology (HKUST) |
| 2000-2004 | Bachelor of Engineering in Computer Science
Shanghai Jiao Tong University
– 6 th place worldwide, ACM ICPC’03 programming contest |

Research Interests

- *Big data analytics*
 - Real-time analytics for video and text streams with deep learning models
 - Scalable graph analytics
- *Data security and privacy*
 - *Differential privacy*: local differential privacy, deep learning with differential privacy
 - *Blockchain infrastructure*: Byzantine Fault Tolerance, smart contracts

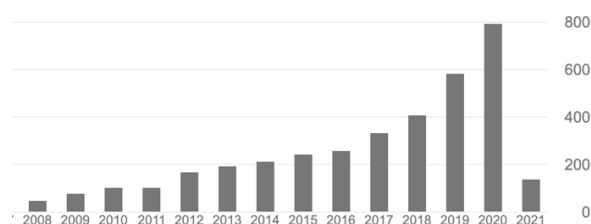
Experience

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| 2014-Now | Associate Professor (Asst. Prof. 2014-2019), HBKU |
| 2011-2014 | Research Scientist, Advanced Digital Sciences Center (ADSC), Singapore |
| 2009-2011 | Postdoc, HKUST and University of Hong Kong |

Selected Publications

Google Scholar: (March 2021)

- H-index: 32
 - i10-index: 60
 - i100-index: 14
- Total number of citations: 3700+
 - Last 5 years: 2500+



Journal papers (names of team members / former team members are shown in *italic*)

- J1. Chen, J., Wu, Y., **Yang, Y.**, Wen, S., Shi, K., Bermak, A., Huang, T. An Efficient Memristor-Based Circuit Implementation of Squeeze-and-Excitation Fully Convolutional Neural Networks. To appear in *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*. Impact factor: 11.683.
- J2. Ran, H., Wen, S., Li, Q., **Yang, Y.**, Shi, K., Feng, Y., Zhou, P., Huang, T. Memristor-Based Edge Computing of Blaze Block for Image Recognition. To appear in *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*. Impact factor: 11.683.
- J3. Ganesh, P., Chen, Y., Lou, X., Khan, M., **Yang, Y.**, Chen, D., Winslett, M., Sajjad, H., Nakov, P. Compressing Large-Scale Transformer-Based Models: A Case Study on BERT. To appear in *Transactions of the Association of Computational Linguistics (TACL)*.
- J4. Yang, R., Shi, J., Xiao, X., **Yang, Y.**, Liu, J., Bhowmick, S. Scaling Attributed Network Embedding to Massive Graphs. *Proceedings of the VLDB Endowment (PVLDB)*, 14(1): 37-49, 2020. Impact Factor: 2.862.
- J5. *Wen, S.*, Chen, J., Wu, Y., Yan, Z., Cao, Y., **Yang, Y.**, Huang, T. CKFO: Convolution Kernel First Operated Algorithm with Applications in Memristor-based Convolutional Neural Network. To appear in *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*, Impact Factor: 2.168.
- J6. Zhong, M., Wen, J., Liu, L., *Li, C.*, Ma, J., Zhang, G., **Yang, Y.** HIGnet: Hierarchical and Interactive Gate Networks for Item Recommendation. *IEEE Intelligent Systems*, 35(5): 1541-1672, 2020. Impact Factor: 3.21.
- J7. *Wen, S.*, Wei, H., Yan, Z., Guo, Z., **Yang, Y.**, Huang, T., Chen, Y. Memristor-Based Design of Sparse Compact Convolutional Neural Network. *IEEE Transactions on Network Science and Engineering*. 7(3): 1431-1440, 2020. Impact Factor: 5.213.
- J8. Shi, J., Jin, T., Yang, R., Xiao, X., **Yang, Y.** Realtime Index-Free Single Source SimRank Processing on Web-Scale Graphs. *Proceedings of the VLDB Endowment (PVLDB)*, 13(7): 966-978, 2020. Impact Factor: 2.862.
- J9. Xue, S., *Luo, B.*, Liu, D., **Yang, Y.** Constrained Event-Triggered H^∞ Control Based on Adaptive Dynamic Programming with Concurrent Learning. To appear in *IEEE Transactions on Systems, Man, and Cybernetics: Systems*. Impact Factor: 7.351.
- J10. *Luo, B.*, **Yang, Y.**, Liu, D. Policy Iteration Q-Learning for Data-Based Two-Player Zero-Sum Game of Linear Discrete-Time Systems. To appear in *IEEE Transactions on Cybernetics*. Impact Factor: 10.387.
- J11. Yang, R., Shi, J. Xiao, X., **Yang, Y.**, Bhowmick, S. Homogeneous Network Embedding for Massive Graphs via Personalized PageRank. *Proceedings of the VLDB Endowment (PVLDB)*, 13(5): 670-683, 2020. Impact Factor: 2.862.
- J12. *Luo, B.*, **Yang, Y.**, Liu, D., Wu, H. Event-Triggered Optimal Control with Performance Guarantees Using Adaptive Dynamic Programming. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 31(1): 76-88, 2020. Impact factor: 11.683.
- J13. Wang, S., Yang, R., Wang, R., Xiao, X., Wei, Z., Lin, W., **Yang, Y.**, Tang, N. Efficient Algorithms for Approximate Single-Source Personalized PageRank Queries. *ACM Transactions on Database Systems (TODS)*, 44(4), Article 18, 2019. Impact factor: 1.517.
- J14. Li, Y., *Luo, B.*, Liu, D., **Yang, Y.**, Yang, Z. Robust Exponential Synchronization for Memristor Neural Networks with Nonidentical Characteristics by Pinning Control. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 51(3):1966-1980, 2021. Impact Factor: 7.351.

- J15. Luo, B., **Yang, Y.**, Wu, H., Huang, T. Balancing Value Iteration and Policy Iteration for Discrete-Time Control. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 50(11): 3948-3958, 2020. Impact Factor: 7.351.
- J16. Shi, J., Yang, R., Jin, T., Xiao, X., **Yang, Y.** Realtime Top- k Personalized PageRank over Large Graphs on GPUs. *Proceedings of the VLDB Endowment (PVLDB)*, 13(1): 15-28, 2019. Impact Factor: 2.862.
- J17. Yan, Z., Liu, W., Wen, S., **Yang, Y.** Multi-Label Image Classification by Feature Attention Network. *IEEE Access*, 7(1): 98005-98013, 2019. Impact Factor: 4.098.
- J18. Wen, S., Liu, W., **Yang, Y.**, Huang, T., Zeng, Z. Generating Realistic Videos from Keyframes with Concatenated GANs. *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 29(8): 2337-2348 Impact Factor: 4.046.
- J19. Wen, S., Xiao, S., **Yang, Y.**, Yan, Z., Zeng, Z., Huang, T. Adjusting Learning Rate of Memristor-based Multilayer Neural Networks via Fuzzy Method. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*, 38(6):1084-1094, 2019. Impact Factor: 2.402.
- J20. Luo, B., **Yang, Y.**, Liu, D. Adaptive Q -Learning for Data-Based Optimal Output Regulation with Experience Replay. *IEEE Transactions on Cybernetics*, 2018. 48(12): 3337-3348. Impact Factor: 10.387.
- J21. Wen, S., Hu, R., **Yang, Y.**, Huang, T., Zeng, Z., Song, Y. Memristor-Based Echo State Network with Online Least Mean Square. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 49(9):1787-1796, 2019. Impact Factor: 7.351.
- J22. Fu, T., Ding, J., Ma, R., Winslett, M., **Yang, Y.**, Zhang, Z. DRS: Auto-Scaling for Real-Time Stream Analytics. *IEEE/ACM Transactions on Networking (TON)*, 25(6): 3338-3352, 2017. Impact Factor: 3.597.
- J23. Wang, S., Tang, Y., Xiao, X., **Yang, Y.**, Li, Z. HubPPR: Effective Indexing for Approximate Personalized PageRank. *Proceedings of the VLDB Endowment (PVLDB)*, 10(3): 205-216, 2016. Impact Factor: 2.862.
- J24. Wang, S., Xiao, X., **Yang, Y.**, Lin, W. Effective Indexing for Approximate Constrained Shortest Path Queries on Large Road Networks. *Proceedings of the VLDB Endowment (PVLDB)*, 10(2): 61-72, 2016. Impact Factor: 2.862.
- J25. Ding, J., Zhang, Z., Ma, R., **Yang, Y.** ABACUS: An Auction-Based Approach to Cloud Service Differentiation. *Elsevier Computer Networks*, 94: 231-249, 2016. Impact Factor: 2.516.
- J26. Cai, R., Hao, Z., Winslett, M., Xiao, X., **Yang, Y.**, Zhang, Z., Zhou, S. Deterministic Identification of Specific Individuals from GWAS Results. *Bioinformatics*, 31(11): 1701-1707, 2015. Impact Factor: 7.307.
- J27. Yuan, G., Zhang, Z., Winslett, M., Xiao, X., **Yang, Y.**, Hao, Z. Low-Rank Mechanism: Optimizing Batch Queries under Differential Privacy. *ACM Transactions on Database Systems (TODS)*, 40(2), Article 11, 2015. Impact factor: 1.517.
- J28. Zhang, S., **Yang, Y.**, Fan, W., Winslett, M. Design and Implementation of a Real-Time Interactive Analytics System for Large Spatio-Temporal Data. *Proceedings of the VLDB Endowment (PVLDB)*, 7(13): 1754-1759, 2014. Impact Factor: 2.862.
- J29. Wang, H., Cai, Y., **Yang, Y.**, Zhang, S., Mamoulis, N. Durable Queries over Historical Time Series. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 26(3): 595-607, 2014. Impact Factor: 3.438.
- J30. Xu, J., Zhang, Z., Xiao, X., **Yang, Y.**, Yu, G., Winslett, M. Differentially Private Histogram Publication. *Very Large Data Bases Journal (VLDB J.)*, 22(6): 792-822, 2013. Impact Factor: 4.269.

- J31. Li, J., **Yang, Y.**, Mamoulis, N. Optimal Route Queries with Arbitrary Order Constraints. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 25(5):1097-1100, 2013. Impact Factor: 3.438.
- J32. Trimponias, G., Bartolini, I., Papadias, D., **Yang, Y.** Skyline Processing on Distributed Vertical Decompositions. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 25(4):850-862, 2013. Impact Factor: 3.438.
- J33. Zhang, J., Zhang, Z., Xiao, X., **Yang, Y.**, Winslett, M., Functional Mechanism: Regression Analysis under Differential Privacy. *Proceedings of the VLDB Endowment (PVLDB)*, 5(11): 1364-1375, 2012. Impact Factor: 2.862.
- J34. Yuan, G., Z. Zhang, Winslett, M., Xiao, X., **Yang, Y.**, Hao, Z. Low-Rank Mechanism: Optimizing Batch Queries under Differential Privacy. *Proceedings of the VLDB Endowment (PVLDB)*, 5(11):1352-1363, 2012. Impact Factor: 2.862.
- J35. Papadopoulos, S., Wang, L., **Yang, Y.**, Papadias, D., Karras, P. Authenticated Multi-Step Nearest Search. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 23(5): 641-654, 2011. Impact Factor: 3.438.
- J36. Papadopoulos, S., **Yang, Y.**, Papadias, D. Continuous Authentication on Relational Streams. *Very Large Data Bases Journal (VLDB J.)*, 19, 161-180, 2010. Impact Factor: 4.269.
- J37. Markowetz, A., **Yang, Y.**, Papadias, D. Keyword Search over Relational Tables and Streams. *ACM Transactions on Database Systems (TODS)*, 34(3), Article 17, 2009. Impact factor: 1.517.
- J38. **Yang, Y.**, Papadopoulos, S., Papadias, D., Kollios, G. Authenticated Indexing for Outsourced Spatial Databases. *Very Large Data Bases Journal (VLDB J.)*, 18(3): 631-648, 2009. Impact Factor: 4.269.
- J39. Zhang, Z., **Yang, Y.**, Tung, A., Papadias, D. Continuous k -Means Monitoring over Moving Objects. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 20(9): 1205-1216, 2008. Impact Factor: 3.438.
- J40. **Yang, Y.**, Papadias, D., Krämer, J., Seeger, B. HybMig: A Hybrid Approach to Dynamic Plan Migration for Continuous Queries. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 19(3): 398-411, 2007. Impact Factor: 3.438.

Refereed conference papers

Full papers

- C1. *Yang, R.*, Shi, J., **Yang, Y.**, Huang, K., Zhang, S., Xiao, X. Effective and Scalable Clustering on Massive Attributed Graphs. *Proceedings of The Web Conference (WWW)*, 2021. Ljubljana, Slovenia, April 19-23, 2021. Acceptance rate: 1/5.
- C2. Sun, H., Xiao, X., Khalil, I., **Yang, Y.**, Qin, Z., Wang, H., Yu, T. Analyzing Subgraph Statistics from Extended Local Views with Decentralized Differential Privacy. *Proceedings of the ACM Conference on Computer and Communications Security (CCS)*, London, UK, November 11-15, 2019. Acceptance rate: 1/6.
- C3. *Yoosuf, S.*, **Yang, Y.** Fine-Grained Propaganda Detection with Fine-Tuned BERT. First-place solution of the fragment-level propaganda classification competition at the *NLP4IF* workshop, *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Hong Kong, November 3-7, 2019.
- C4. Ma, J., Wen, J., Zhong, M., Liu, L., Chen, W., *Li, C.*, **Yang, Y.**, Tu H., Li, X. DBRec: Dual-Bridging Recommendation via Discovering Latent Groups. *Proceedings of the ACM International Conference on Information and Knowledge Management (CIKM)*, Beijing, China, November 3-7, 2019. Acceptance rate: 1/5.

- C5. Wang, N., Xiao, X., **Yang, Y.**, Zhao, J., Hui, S. Shin, H., Shin, J., Yu, G. Collecting and Analyzing Multidimensional Data with Local Differential Privacy. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Macau S.A.R., April 8-12, 2019. Acceptance Rate: 1/5.
- C6. Wang, N., Xiao, X., **Yang, Y.**, Hoang, T., Shin, H., Shin, J., Yu, G. PrivTrie: Effective Frequent Term Discovery under Local Differential Privacy. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Paris, France, April 16-19, 2018. Acceptance Rate: 1/5.
- C7. Wang, S. Yang, R., Xiao, X., Wei, Z., **Yang, Y.** FORA: Simple and Effective Approximate Single-Source Personalized PageRank. Proceedings of the *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, Halifax, Canada, August 13-17, 2017. Acceptance rate: 1/11 (full paper with oral presentation).
- C8. Wang, N., Xiao, X., **Yang, Y.**, Zhang, Z., Gu, Y., Yu, G. PrivSuper: a Superset-First Approach to Frequent Itemset Mining under Differential Privacy. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, San Diego, California, USA, April 29-22, 2017. Acceptance rate: 1/5.
- C9. Qin, Z., Yu, T., **Yang, Y.**, Khalil, I., Xiao, X., Ren, K. Generating Synthetic Decentralized Social Graphs with Local Differential Privacy. Proceedings of the *ACM Conference on Computer and Communications Security (CCS)*, Dallas, TX, USA, October 30-November 3, 2017. Acceptance rate: 1/5.
- C10. Yuan, G., **Yang, Y.**, Zhang, Z., Hao, Z. Convex Optimization for Linear Query Processing under Approximate Differential Privacy. Proceedings of the *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, San Francisco, California, USA, August 13-17, 2016. Acceptance rate: 1/5 (full paper with poster presentation).
- C11. Qin, Z., **Yang, Y.**, Yu, T., Khalil, I., Xiao, X., Ren, K. Heavy Hitter Estimation over Set-Valued Data with Local Differential Privacy. Proceedings of the *ACM Conference on Computer and Communications Security (CCS)*, Vienna, Austria, October 24-28, 2016. Acceptance rate: 1/6.
- C12. Wang, L., Zhou, M., Zhang, Z., **Yang, Y.**, Zhou, A. Elastic Pipelining in an In-Memory Database Cluster. Proceedings of the *ACM Conference on the Management of Data (SIGMOD)*, San Francisco, California, USA. June 26-July 1, 2016. Acceptance rate: 1/5.
- C13. Fu, T., Ding, J., Ma, R., Winslett, M., **Yang, Y.**, Zhang, Z. DRS: Dynamic Resource Scheduling for Real-Time Analytics over Fast Streams. Proceedings of the *IEEE International Conference on Distributed Computing Systems (ICDCS)*, Columbus, Ohio, USA, June 29-July 2, 2015. Acceptance rate: 1/7 (full paper with oral presentation).
- C14. Zhang, J., Xiao, X., **Yang, Y.**, Zhang, Z., Winslett, M. PrivGene: Differentially Private Model Fitting Using Genetic Algorithms. Proceedings of the *ACM Conference on the Management of Data (SIGMOD)*, New York City, New York, USA, June 22-27, 2013. Acceptance rate: 1/5.
- C15. Zhang, Z., Ma, R., Ding, J., **Yang, Y.** ABACUS: An Auction-Based Approach to Cloud Service Differentiation. Proceedings of the *IEEE International Conference on Cloud Engineering (IC2E)*, San Francisco, CA, USA, March 25-27, 2013. Acceptance rate: 1/107 (Best paper award).
- C16. Zhang, Z., Shu, H., Chong, Z., Lu, H., **Yang, Y.** C-Cube: Elastic Continuous Clustering in the Cloud. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Brisbane, Australia, April 8-11, 2013. Acceptance rate: 1/5.
- C17. Peng, S., **Yang, Y.**, Zhang, Z., Winslett, M., Yu, Y. Query Optimization for Differentially Private Data Management Systems. Proceedings of the *IEEE International*

Conference on Data Engineering (ICDE), Brisbane, Australia, April 8-11, 2013. Acceptance rate: 1/5.

- C18. Xu, J., Zhang, Z., Xiao, X., **Yang, Y.**, Yu, G. Differentially Private Histogram Publication. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Washington D. C., USA, April 1-5, 2012. Acceptance rate: 1/5.
- C19. Wang, L., **Yang, Y.**, Miao, X., Papadias, D., Liu, Y. Algorithms for Local Sensor Synchronization. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Hannover, Germany, April 11-16, 2011. Acceptance rate: 1/6 (full presentation).
- C20. **Yang, Y.**, Papadias, D., Papadopoulos, S., Kalnis, P. Authenticated Join Processing in Outsourced Databases. Proceedings of the *ACM Conference on the Management of Data (SIGMOD)*, Providence, RI, USA, June 29th - July 2, 2009. Acceptance rate: 1/7.
- C21. Zhang, Z., **Yang, Y.**, Cai, R., Papadias, D., Tung, A. Kernel-Based Skyline Cardinality Estimation. Proceedings of the *ACM Conference on the Management of Data (SIGMOD)*, Providence, RI, USA, June 29th - July 2, 2009. Acceptance rate: 1/7.
- C22. **Yang, Y.**, Bansal, N., Dakka, W., Ipeirotis, P., Koudas, N., Papadias, D. Query by Document. Proceedings of the *ACM International Conference on Web Search and Data Mining (WSDM)*, Barcelona, Spain, February 9-12, 2009. Acceptance rate: 1/6.
- C23. **Yang, Y.**, Papadopoulos, S., Papadias, D., Kollios, G. Spatial Outsourcing for Location-based Services. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Cancún, México, April 7-12, 2008. Acceptance rate: 1/7.
- C24. **Yang, Y.**, Papadias, D. Just-In-Time Processing of Continuous Queries. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Cancún, México, April 7-12, 2008. Acceptance rate: 1/7.
- C25. Papadopoulos, S., **Yang, Y.**, Papadias, D. CADs: Continuous Authentication on Data Streams. Proceedings of the *Very Large Data Bases Conference (VLDB)*, Vienna, Austria, September 23-28, 2007. Acceptance rate: 1/7.
- C26. Markowetz, A., **Yang, Y.**, Papadias, D. Keyword Search on Relational Data Streams. Proceedings of the *ACM Conference on the Management of Data (SIGMOD)*, Beijing, China, June 14-17, 2007. Acceptance rate: 1/7.
- C27. **Yang, Y.**, Ng, W., Lau, H.-L., Cheng, J. An Efficient Approach to Querying Secure Outsourced XML Information. Proceedings of the *International Conference on Advanced Information Systems Engineering (CAiSE)*, Luxembourg, 2006. Acceptance rate: 1/6.
- C28. Zhang, L., Yu, Y., Lin, C., Zhou, J., **Yang, Y.** An Enhanced Model for Searching in Semantic Portals. Proceedings of the *International World Wide Web Conference (WWW)*, Chiba, Japan, 2005. Acceptance rate: 1/7.

Short papers and tutorials

- C29. Li, Y., Zhang, Z., Winslett, M., **Yang, Y.** Compressive Mechanism: Utilizing Sparse Representation in Differential Privacy. Proceedings of the *Workshop on Privacy in the Electronic Society (WPES)*, Chicago, IL, USA, October 17, 2011. Acceptance rate: 1/4.
- C30. Markowetz, A., **Yang, Y.**, Papadias, D. Reachability Indexes for Relational Keyword Search. Proceedings of the *IEEE International Conference on Data Engineering (ICDE)*, Shanghai, China, March 29 - April 4, 2009. Acceptance rate: 1/4.

- C31. **Yang Y.**, Zhang, Z., Miklau, G., Winslett, M., Xiao, X. Differential Privacy in Data Publication and Analysis. Proceedings of the *ACM Conference on the Management of Data (SIGMOD)*, Scottsdale, Arizona, USA, May 20-24, 2012 (tutorial).

Projects

Role	Funding Source	Program	Title	Amount	Timespan
Co-Investigator	A*STAR ¹	HCCS	Scalable, Real-Time Analytics on Challenging Data	US\$1.3m	2014–2016
Co-Investigator	Samsung	GRO ²	Collecting and Analyzing Data from Smart Device Users with Strong Privacy Protection	US\$100k	2015–2016
Co-Investigator	Samsung	GRO	Discovering Patterns from Smart Device Users with Differential Privacy	US\$100k	2016–2017
Mentor	QNRF ³	UREP	Line-Tracking Smart Car with Edge-based Path Recognition and Dual-PID Control Strategy	US\$30k	2017-2018
Lead PI	QNRF	NPRP	Real-Time Analytics for Sports Video Streams	US\$717k	2017–2020
PI	Samsung	GRO	Building and Enhancing AI Models on Smart Devices with Differential Privacy	US\$100k	2018-2019
Lead PI	QNRF	NPRP	Detecting Fraudulent Messages with Strong Privacy Protection	US\$595k	2018–2021
Lead PI (blockchain infrastructure subproject)	QNRF	NPRP Cluster	A Secure End-to-End Blockchain-Based Solution to Finance Trade	US\$3.12m (US\$616k subproject)	2019-2022
PI	QNRF/MME ⁴	MME	Developing National Food Security Intelligence	US\$745k	2020-2023
Lead PI	QNRF	RRC	Predicting and Visualizing COVID-19 Patients' Future Chest X-Ray Images with Deep Learning	US\$27k	2020 (3 months)
PI	HMC ⁵	-	Towards Developing a Decontamination Mechanism to Reuse N95 Masks	US\$32k	2020-2021 (6 months)
Co-Investigator	Facebook	-	Privacy Personas in the MENA Region: A Large-Scale Analysis of 21 Countries	US\$79k	2020-2021
Consultant	Iberdrola	-	Analysis and Visualization of Smart Power Grid Communication System at NeoEnergia	US\$20k	2020-2021 (4 months)
PI	QNRF/Tübitak ⁶	AIC	Intelligent Public Safety Platform for Smart Cities	US\$749k (Qatar side)	2021-2023

¹ Agency for Science, Technology and Research, Singapore. HCCS = Human-Centric Cyber Systems.

² GRO = Global Research Outreach.

³ Qatar National Research Funds. UREP = Undergraduate Research Experience Program; NPRP = National Priority Research Program; RRC = Rapid Response to Covid19.

⁴ Ministry of Municipality and Environment, Qatar.

⁵ Hamad Medical Corporation, Qatar.

⁶ Scientific and Technological Research Council of Turkey. AICC = Academia-Industry Cooperation.

Teaching

DSEG733: Advanced Data Management Systems. HBKU, fall'16, fall'17, spring'19, spring'20.
DSEG660: Applied Deep Learning. HBKU, spring'18, spring'19, fall'19, fall'20.
ICT716: Data Science Tools and Applications, fall'18, spring'20, spring'21.
ICT605: Applied Data Analytics. HBKU, spring'16 (as CSE505), spring'17.
CPEG280: Introduction to Multimedia Computing. HBKU, summer'16.
CPEG110: Principles of Computing. HBKU, spring'17.
DSEG680: Special Topics in Data Science and Engineering, HBKU, spring'17.
CZ4033: Advanced Data Management, NTU, spring'14.
COMP343: Multimedia Computing, HKUST, fall'09.

Student Achievements

Shehel Yoosuf. *2nd place* in Artificial Intelligence National Competition, Level 1: Concept and Design. 2020.
Shehel Yoosuf. *1st place* in EMNLP/NLP4IF fragment-level propaganda classification competition, Task FLC, 2019.
Mohammed Amro. *8th place* solution (*5th place* participant), ISIC Skin Lesion Analysis Towards Melanoma Detection, Task 3, 2018.
Alanood Alkuwari. *3rd place*, Qatar Development Bank Startup Week, 2017.

Professional Services

Organizer: Co-chair: *IEEE ICDE PrivDB*, 2013.
Publicity co-chair: *APWeb*, 2015.
Sponsorship co-chair: *ACM CIKM*, 2017.
PC member: *IEEE ICDE*: 2013, 2015, 2017, 2021.
ACM SIGMOD: 2013, 2018.
ACM CIKM: 2017, 2018.
AAAI: 2021.
Journal referee: *ACM TODS*, *ACM TISSEC*, *VLDB J.*, *ACM TWEB*, *IEEE TDSC*, *IEEE TKDE*, *IEEE TMC*, *IEEE TIFS*
Editorial: *Elsevier IPM*, as Editorial Board member (since 2017).
Elsevier IPM Special Issue on Blockchain for Information Systems Management and Security, as Guest Editor, 2020.