# Spiridon Bakiras

Curriculum Vitae

Division of Information and Computing Technology College of Science and Engineering Hamad Bin Khalifa University P.O. Box 34110, Doha, Qatar \$\mathbf{\arrow} +974 4454 8222 \$\vee\$ sbakiras@hbku.edu.qa \$\vee\$ sbakiras.github.io

# EDUCATION

- 1996 2000 Ph.D. in Electrical Engineering, University of Southern California, Los Angeles, CA, USA.
- Dissertation: Real-time traffic transmission over packet-switched networks
- Advisor: Professor Victor O.K. Li
- 1993 1994 M.Sc. in Telematics, University of Surrey, Guildford, UK.
- 1988 1993 **Diploma in Electrical and Computer Engineering**, National Technical University of Athens, Athens, Greece.

# WORK EXPERIENCE

- 2016 present Associate Professor, Division of Information and Computing Technology, College of Science and Engineering, Hamad Bin Khalifa University.
  - 2015 2016 Associate Professor, *Dept. of Computer Science*, Michigan Technological University. Director of the Center for Cybersecurity at the Institute of Computing and Cybersystems at Michigan Technological University.
  - 2010 2017 Associate Professor (tenured), Dept. of Mathematics and Computer Science, John Jay College, City University of New York. Also a faculty member of the Doctoral Program in Computer Science at the Graduate Center of the City University of New York.
  - 2012 2013 Visiting Associate Professor (sabbatical leave), Dept. of Computer Science and Engineering, Hong Kong University of Science and Technology.
  - 2006 2010 Assistant Professor, Dept. of Mathematics and Computer Science, John Jay College, City University of New York.
  - 2005 2006 Research Associate, Dept. of Computer Science, University of Hong Kong.
  - 2004 2005 **Research Associate**, *Dept. of Computer Science and Engineering*, Hong Kong University of Science and Technology.
  - 2001 2004 **Research Assistant Professor**, *Dept. of Electrical and Electronic Engineering*, University of Hong Kong.
  - 1998 2000 Research Assistant, Dept. of Electrical and Electronic Engineering, University of Hong Kong.
  - Fall 1997 Part-time Lecturer, Dept. of Electrical Engineering, University of Southern California.
  - 1994 1996 Electrical Engineer (military service), Hellenic Navy, Greece.

# **Research Interests**

Security & Secure and privacy-preserving computations, location privacy, applied cryptography, computer/network Privacy security and forensics, blockchain technology.

Mobile Location-based services, data management for mobile and pervasive computing, spatial databases, Computing spatio-temporal data mining, sensor networks.

# HONORS AND AWARDS

- 2011 Faculty Scholarly Excellence Reward, John Jay College, City University of New York.
- 2009 Faculty Early Career Development (CAREER) Award, U.S. National Science Foundation.
- 2008 Faculty Scholarly Excellence Reward, John Jay College, City University of New York.

#### 1996 – 1999 State Scholarships Foundation of Greece, Greek Government.

### Research Funding

- 2021 2024 **Qatar National Research Fund**, National Priorities Research Program. Endpoint Secured Multisensor Interface Chip for IoT Applications (Co-PI, USD 500,000)
- 2019 2022 **Qatar National Research Fund**, National Priorities Research Program. Extending blockchain technology – a novel paradigm and its applications to cybersecurity and fintech (Co-PI, USD 600,000)
  - 2019-2020 HBKU Innovation Center. Privacy-preserving video surveillance (PI, USD 14,000)
- 2013 2015 U.S. National Science Foundation, SBE Office of Multidisciplinary Activities. Towards a cellphone-based infrastructure for harvesting dynamic interaction network data (Co-PI, USD 249,780)
- 2009 2014 U.S. National Science Foundation, Division of Information & Intelligent Systems. CAREER: Providing authentication and privacy in location-based services (PI, USD 489,161)
- 2007 2010 **PSC-CUNY Research Award**, *City University of New York*. *Internal research award* (PI, USD 12,000)

# PUBLICATION LIST

Google Scholar: https://scholar.google.com/citations?user=rpzKBjQAAAAJ&hl=en

Book [1] S. Bakiras, "Anonymous communications over delay tolerant networks," in *Encyclopedia of Cryp*-Chapters *tography and Security*, Springer, to appear.

[2] N. Mamoulis, S. Bakiras, and P. Kalnis, "Top-k OLAP queries using augmented spatial access methods," in *Encyclopedia of GIS*, Springer, pp. 1156–1161, 2008.

Journal Papers [3] M. Baza, A. Sherif, M. Mahmoud, S. Bakiras, X. Lin, and M. Abdallah, "Privacy-Preserving blockchain-based energy trading schemes for electric vehicles," in *IEEE Transactions on Vehicular Technology*, accepted.

[4] P. Tedeschi, S. Bakiras, and R. Di Pietro, "IoTrace: A flexible, efficient, and privacy-preserving IoT-enabled architecture for contact tracing," in *IEEE Communications Magazine*, accepted.

[5] E. Bentafat, M. M. Rathore, and S. Bakiras, "Privacy-preserving multi-point traffic flow estimation for road networks," in *Security and Communication Networks Journal*, 2021.

[6] M. M. Rathore, S. A. Shah, D. Shukla, E. Bentafat, and S. Bakiras, "The role of AI, machine learning, and big data in digital twinning: A systematic literature review, challenges, and opportunities," in *IEEE Access*, 9(1):32030–32052, February 2021.

[7] M. M. Rathore, M. J. Gul, A. Paul, A. A. Khan, R. W. Ahmad, J. J. P. C. Rodrigues, and S. Bakiras, "Multilevel graph-based decision making in big scholarly data: an approach to identify expert reviewer, finding quality impact factor, ranking journals and researchers," in *IEEE Transactions on Emerging Topics in Computing*, 9(1):280–292, 2021.

[8] S. Bakiras, E. Troja, X. Xu, and J. F. Naves, "Secure and anonymous communications over delay tolerant networks," in *IEEE Access*, 8(1):88158-88169, December 2020.

[9] E. Troja and S. Bakiras, "Optimizing Privacy-preserving DSA for mobile clients," in *Ad Hoc Networks*, 59:71–85, May 2017.

[10] B. Mu and S. Bakiras, "Private proximity detection for convex polygons," in *Tsinghua Science and Technology*, 21(3):270–280, June 2016.

[11] E. Troja and S. Bakiras, "Leveraging P2P interactions for efficient location privacy in database-driven dynamic spectrum access," in *International Journal of Network Security*, 17(5):567–579, September 2015.

[12] L. Hu, W.-S. Ku, S. Bakiras, and C. Shahabi, "Spatial query integrity with Voronoi neighbors," in *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 25(4):863–876, April 2013.

[13] S. Papadopoulos, S. Bakiras, and D. Papadias, "pCloud: A distributed system for practical PIR," in *IEEE Transactions on Dependable and Secure Computing (TDSC)*, 9(1):115–127, January 2012.

[14] S. Papadopoulos, S. Bakiras, and D. Papadias, "Nearest neighbor search with strong location privacy," in *Proc. of the VLDB Endowment (PVLDB)*, 3(1):619–629, September 2010.

[15] K. Mouratidis, S. Bakiras, and D. Papadias, "Continuous monitoring of spatial queries in wireless broadcast environments," in *IEEE Transactions on Mobile Computing (TMC)*, 8(10):1297–1311, October 2009.

[16] M. L. Yiu, N. Mamoulis, and S. Bakiras, "Retrieval of spatial join pattern instances from sensor networks," in *GeoInformatica*, 13(1):57–84, March 2009.

[17] S. Bakiras, F. Wang, D. Papadias, and M. Hamdi, "Vertical dimensioning: A novel DRR implementation for efficient fair queueing," in *Computer Communications*, 31(14):3476–3484, September 2008.

[18] Z. Zhu, P. Kalnis, and S. Bakiras, "DCMP: A distributed cycle minimization protocol for peerto-peer networks," in *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 19(3):363–377, March 2008.

[19] K. Mouratidis, D. Papadias, S. Bakiras, and Y. Tao, "A threshold-based algorithm for continuous monitoring of k nearest neighbors," in *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 17(11):1451–1464, November 2005.

[20] S. Bakiras, T. Loukopoulos, D. Papadias, and I. Ahmad, "Adaptive schemes for distributed web caching," in *Journal of Parallel and Distributed Computing (JPDC)*, 65(12):1483–1496, December 2005.

[21] S. Bakiras and T. Loukopoulos, "Combining replica placement and caching techniques in content distribution networks," in *Computer Communications*, 28(9):1062–1073, June 2005.

[22] S. Bakiras and V. O. K. Li, "A scalable architecture for end-to-end QoS provisioning," in *Computer Communications*, 27(13):1330–1340, August 2004.

[23] S. Bakiras and V. O. K. Li, "Maximizing the number of users in an interactive video-on-demand system," in *IEEE Transactions on Broadcasting*, 48(4):281–292, December 2002.

Conference [24] E. Bentafat, M. M. Rathore, and S. Bakiras, "Privacy-preserving traffic flow estimation for road Proceedings networks," in *Proc. IEEE Global Communications Conference (GLOBECOM)*, December 2020.

[25] E. Bentafat, M. M. Rathore, and S. Bakiras, "A practical system for privacy-preserving video surveillance," in *Proc. International Conference on Applied Cryptography and Network Security (ACNS)*, June 2020.

[26] K. Yao, D. Papadias, and S. Bakiras, "Density-based community detection in geo-social networks," in *Proc. International Symposium on Spatial and Temporal Databases (SSTD)*, August 2019.

[27] M. M. Rathore, E. Bentafat, and S. Bakiras, "Smart home security: A distributed identity-based security protocol for authentication and key exchange," in *Proc. IEEE International Conference on Computer Communications and Networks (ICCCN)*, July 2019.

[28] A. K. Abdulla and S. Bakiras, "HITC: Data privacy in online social networks with fine-grained access control," in *Proc. ACM Symposium on Access Control Models and Technologies (SACMAT)*, June 2019.

[29] X. Xu, Y. Zhao, D. Zhao, L. Yang, and S. Bakiras, "Distributed real-time data aggregation scheduling in duty-cycled multi-hop sensor networks," in *Proc. International Conference on Wireless Algorithms, Systems and Applications (WASA)*, June 2019.

[30] E. M. Radi, N. Lasla, S. Bakiras, and M. Mahmoud, "Privacy-preserving electric vehicle charging for peer-to-peer energy trading ecosystems," in *Proc. IEEE International Conference on Communications (ICC)*, May 2019.

[31] S. Bakiras, E. Troja, and X. Hu, "An anonymous messaging system for delay tolerant networks," in *Proc. IEEE International Conference on Communications (ICC)*, May 2017.

[32] E. Troja and S. Bakiras, "Privacy-preserving location-aware mobile advertisement," in *Proc. IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TRUSTCOM)*, August 2016.

[33] E. Troja and S. Bakiras, "Efficient location privacy for moving clients in database-driven dynamic spectrum access," in *Proc. IEEE International Conference on Computer Communications and Networks (ICCCN)*, August 2015.

[34] E. Troja and S. Bakiras, "Leveraging P2P interactions for efficient location privacy in databasedriven dynamic spectrum access," in *Proc. ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (GIS)*, November 2014 (poster).

[35] S. Buyrukbilen and S. Bakiras, "Privacy-preserving ranked search on public-key encrypted data," in *Proc. IEEE International Conference on High Performance Computing and Communications (HPCC)*, November 2013.

[36] S. Buyrukbilen and S. Bakiras, "Secure similar document detection with simhash," in *Proc. VLDB* Workshop on Secure Data Management (SDM), August 2013.

[37] B. Mu and S. Bakiras, "Private proximity detection for convex polygons," in *Proc. ACM Workshop* on *Data Engineering for Wireless and Mobile Access (MobiDE)*, pp. 36–43, June 2013.

[38] S. Bakiras and K. F. Nikolopoulos, "Adjusting the trade-off between privacy guarantees and computational cost in secure hardware PIR," in *Proc. VLDB Workshop on Secure Data Management (SDM)*, pp. 128–144, September 2011.

[39] L.Hu, W.-S. Ku, S. Bakiras, and C. Shahabi, "Verifying spatial queries using Voronoi neighbors," in *Proc. ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems* (*GIS*), pp. 350–359, November 2010.

[40] S. Papadopoulos, Y. Yang, S. Bakiras, and D. Papadias, "Continuous spatial authentication," in *Proc. International Symposium on Spatial and Temporal Databases (SSTD)*, pp. 62–79, July 2009.

[41] N. Vyahhi, S. Bakiras, P. Kalnis, and G. Ghinita, "Tracking moving objects in anonymized trajectories," in *Proc. International Conference on Database and Expert Systems Applications (DEXA)*, pp. 158–171, September 2008.

[42] M. L. Yiu, N. Mamoulis, and S. Bakiras, "Retrieval of spatial join pattern instances from sensor networks," in *Proc. International Conference on Scientific and Statistical Database Management (SSDBM)*, July 2007.

[43] K. Mouratidis, S. Bakiras, and D. Papadias, "Continuous monitoring of top-k queries over sliding windows," in *Proc. ACM International Conference on Management of Data (SIGMOD)*, pp. 635–646, June 2006.

[44] P. Kalnis, N. Mamoulis, S. Bakiras, and X. Li, "Ad-hoc distributed spatial joins on mobile devices," in *Proc. IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, April 2006.

[45] N. Mamoulis, S. Bakiras, and P. Kalnis, "Evaluation of top-k OLAP queries using aggregate R-trees," in *Proc. International Symposium on Spatial and Temporal Databases (SSTD)*, pp. 236–253, August 2005.

[46] P. Kalnis, N. Mamoulis, and S. Bakiras, "On discovering moving clusters in spatio-temporal data," in *Proc. International Symposium on Spatial and Temporal Databases (SSTD)*, pp. 364–381, August 2005.

[47] M. Terrovitis, S. Bakiras, D. Papadias, and K. Mouratidis, "Constrained shortest path computation," in *Proc. International Symposium on Spatial and Temporal Databases (SSTD)*, pp. 181–199, August 2005.

[48] S. Bakiras, "Approximate server selection algorithms in content distribution networks," in *Proc. IEEE International Conference on Communications (ICC)*, pp. 1490–1494, May 2005.

[49] S. T. Goh, P. Kalnis, S. Bakiras, and K. L. Tan, "Real datasets for file-sharing peer-to-peer systems," in *Proc. International Conference on Database Systems for Advanced Applications (DASFAA)*, pp. 201–213, April 2005.

[50] S. Bakiras and T. Loukopoulos, "Increasing the performance of CDNs using replication and caching: A hybrid approach," in *Proc. IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, April 2005.

[51] P. K. C. Tse, S. Bakiras, and K. K. Wong, "On providing QoS guarantees for real-time multimedia streams," in *Proc. International Conference on Advances in Mobile Multimedia*, September 2004.

[52] N. Mamoulis, P. Kalnis, S. Bakiras, and X. Li, "Optimization of spatial joins on mobile devices," in *Proc. International Symposium on Spatial and Temporal Databases (SSTD)*, pp. 233–251, July 2003.

[53] S. Bakiras, T. Loukopoulos, and I. Ahmad, "Dynamic organization schemes for cooperative proxy caching," in *Proc. IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, pp. 48–55, April 2003.

[54] S. Bakiras, P. Kalnis, T. Loukopoulos, and W. S. Ng, "A general framework for searching in distributed data repositories," in *Proc. IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, pp. 34–41, April 2003.

[55] S. Bakiras and V. O. K. Li, "Efficient resource management for end-to-end QoS guarantees in DiffServ networks," in *Proc. IEEE International Conference on Communications (ICC)*, pp. 1220–1224, April 2002.

[56] S. Bakiras and V. O. K. Li, "Quality of service support in differentiated services packet networks," in *Proc. IEEE International Conference on Communications (ICC)*, pp. 2370–2374, June 2001.

[57] S. Bakiras and V. O. K. Li, "Maximizing Network Utilization for Streaming Video," in *Proc. Asia Pacific Conference on Multimedia Technology and Applications*, pp. 27–35, December 2000 (invited paper).

[58] S. Bakiras and V. O. K. Li, "Smoothing and prefetching video from distributed servers," in *Proc. IEEE International Conference on Network Protocols (ICNP)*, pp. 311–318, October 1999.

# PROFESSIONAL ACTIVITIES

#### **Editorial Board Member**

- 2020 present Associate Editor of Security, Privacy and Authentication—Frontiers in Communications and Networks Journal
- 2021 present Associate Editor of Security and Communication Networks Journal

#### Program Committee Member

- 2021 International Conference on Database Systems for Advanced Applications (DASFAA)
   International Symposium on Spatial and Temporal Databases (SSTD)
   International Conference on Digital Forensics & Cyber Crime (ICDF2C)
   International Workshop on Cryptocurrencies and Blockchain Technology (CBT)
- 2020 IEEE Global Communications Conference (GLOBECOM) International Conference on Digital Forensics & Cyber Crime (ICDF2C) IEEE International Conference on Embedded and Ubiquitous Computing (EUC)
- 2019 International Symposium on Spatial and Temporal Databases (SSTD)
   IEEE Global Communications Conference (GLOBECOM)
   International Conference on Database and Expert Systems Applications (DEXA)
   IEEE International Conference on Connected Vehicles and Expo (ICCVE)
   International Conference on Cyber Security (ICCS)
- 2018 International Conference on Digital Forensics & Cyber Crime (ICDF2C)
   International Conference on Database and Expert Systems Applications (DEXA)
   ISEA International Conference on Security & Privacy (ISEA-ISAP)
   IEEE International Conference on Ubiquitous Computing and Communications (IUCC)
- 2017 Asia Security and Privacy Conference (Asia S&P)
   International Conference on Digital Forensics & Cyber Crime (ICDF2C)
   International Symposium on Spatial and Temporal Databases (SSTD)
   International Conference on Database and Expert Systems Applications (DEXA)
- 2016 International Conference on Database Systems for Advanced Applications (DASFAA)
   International Conference on Database and Expert Systems Applications (DEXA)
   IEEE International Conference on Ubiquitous Computing and Communications (IUCC)
   International Conference on Digital Forensics & Cyber Crime (ICDF2C)

- 2015 ACM International Conference on Information and Knowledge Management (CIKM) International Symposium on Spatial and Temporal Databases (SSTD) International Conference on Database and Expert Systems Applications (DEXA) International Conference on Database Systems for Advanced Applications (DASFAA) International Conference on Connected Vehicles & Expo (ICCVE)
- 2014 ACM International Conference on Information and Knowledge Management (CIKM) International Conference on Database and Expert Systems Applications (DEXA) IEEE International Conference on Ubiquitous Computing and Communications (IUCC)
- 2013 International Symposium on Spatial and Temporal Databases (SSTD)
   IEEE Mobile Data Management (MDM)
   International Conference on Database and Expert Systems Applications (DEXA)
   ACM Workshop on Data Engineering for Wireless and Mobile Access (MobiDE)
   International Conference on Connected Vehicles & Expo (ICCVE)
- 2012 IEEE International Conference on Communications (ICC) International Conference on Computing, Networking and Communications (ICNC) International Conference on Database and Expert Systems Applications (DEXA) International Conference on Multimedia and Ubiquitous Engineering (MUE)
- 2011 International Symposium on Spatial and Temporal Databases (SSTD) International Conference on Database and Expert Systems Applications (DEXA) IEEE Global Telecommunications Conference (GLOBECOM) International Conference on Multimedia and Ubiquitous Engineering (MUE)
- 2010 International Conference on Database and Expert Systems Applications (DEXA) IEEE Global Telecommunications Conference (GLOBECOM) International Workshop on Semantic and Conceptual Issues in GIS (SeCoGIS)
- 2009 International Symposium on Spatial and Temporal Databases (SSTD)
   International Conference on Database and Expert Systems Applications (DEXA)
   International Workshop on Semantic and Conceptual Issues in GIS (SeCoGIS)
   International Conference on Communications and Networking in China (ChinaCom)
- 2007 International Symposium on Spatial and Temporal Databases (SSTD) IEEE Global Telecommunications Conference (GLOBECOM)
- 2006 IEEE Global Telecommunications Conference (GLOBECOM) IADIS Conference on Database Systems (DS) IADIS Conference on WWW/Internet
- 2005 IEEE Workshop on High Performance Switching and Routing (HPSR) IADIS Conference on Database Systems (DS) IADIS Conference on WWW/Internet

#### **External Reviewer**

- 2009 IEEE International Symposium on Wireless Communication Systems (ISWCS)
- 2008 IEEE International Conference on Data Engineering (ICDE)
- 2007 ACM International Conference on Management of Data (SIGMOD) International Conference on Very Large Data Bases (VLDB) ACM International Symposium on Advances in Geographic Information Systems (GIS) IEEE Consumer Communications and Networking Conference (CCNC)
- ACM International Conference on Management of Data (SIGMOD)
   International Conference on Very Large Data Bases (VLDB)
   ACM International Conference on Knowledge Discovery & Data Mining (SIGKDD)
   ACM International Symposium on Advances in Geographic Information Systems (GIS)

International Conference on Extending Database Technology (EDBT)

- 2005 IEEE International Conference on Communications (ICC)
- 2004 IEEE International Conference on Distributed Computing Systems (ICDCS)
- 2003 IEEE Vehicular Technology Conference (VTC)

#### **Journal Reviewer**

- 2021 Computer Communications Journal of Computer Security
- 2020 Computer Communications Computer Networks Pervasive and Mobile Computing
- 2019 IEEE Transactions on Knowledge and Data Engineering Computer Communications Security and Communication Networks Wireless Communications and Mobile Computing IEEE Transactions on Network Science and Engineering
- 2018 IEEE Transactions on Mobile Computing ACM Transactions on Spatial Algorithms and Systems IEEE Transactions on Cognitive Communications and Networking IEEE Transactions on Information Forensics & Security Journal of Parallel and Distributed Computing Security and Communication Networks Computer Communications Ad Hoc Networks
- 2017 IEEE Transactions on Sustainable Computing IEEE Transactions on Industrial Informatics IEEE Transactions on Mobile Computing
- 2016 IEEE Transactions on Knowledge and Data Engineering GeoInformatica
- 2015 IEEE Transactions on Knowledge and Data Engineering IEEE Transactions on Information Forensics & Security IEEE Transactions on Vehicular Technology
- 2014 Theory of Computing Systems Information Systems Security and Communication Networks GeoInformatica
- 2013 IEEE Transactions on Knowledge and Data Engineering KSII Transactions on Internet and Information Systems
- 2012 VLDB Journal ACM Transactions on Database Systems Journal of Computer Science and Technology
- 2011 Data & Knowledge Engineering
- 2010 VLDB Journal Data & Knowledge Engineering IEEE Transactions on Knowledge and Data Engineering
- 2009 Data & Knowledge Engineering IEEE Communications Letters Sensors

- 2008 IEEE Transactions on Knowledge and Data Engineering
- 2007 VLDB Journal IEEE Transactions on Knowledge and Data Engineering
- 2006 IEEE Transactions on Communications IEEE Transactions on Multimedia
- 2003 IEEE Transactions on Broadcasting
- 2002 IEEE Transactions on Wireless Communications

#### **NSF** Panelist

- 2011 Division of Information and Intelligent Systems (IIS)
- 2010 Division of Information and Intelligent Systems (IIS)

#### **Conference Organization**

- 2015 IEEE Symposium on Person, Indoor, and Mobile Radio Communications (PIMRC) Track Co-Chair for the Service, Applications, and Business track
- 2013 IEEE International Conference on Mobile Data Management (MDM) Publicity Chair

# STUDENT ADVISING

#### Ph.D. Thesis Advisor

Mouna Rahbi, Hamad Bin Khalifa University (since 2020) Noora Al-Emadi, Hamad Bin Khalifa University (since 2020) Abdulaziz Hamed Al-Marwani, Hamad Bin Khalifa University (since 2019) Kamela Ali Al-Mannai, Hamad Bin Khalifa University (since 2019) Ahmed Khalil Abdulla, Hamad Bin Khalifa University (since 2018) Elmahdi Bentafat, Hamad Bin Khalifa University (since 2017) Khalid Al-Kubaisi, Hamad Bin Khalifa University (since 2017) Sana Alfarsi, Hamad Bin Khalifa University (since 2017) Konstantinos Nikolopoulos, City University of New York (graduated in 2017) Erald Troja, City University of New York (graduated in 2013)

#### M.S. Thesis Advisor

Fareeduddin Mohammed, Hamad Bin Khalifa University (since 2020)
Ahmed Aziz, Hamad Bin Khalifa University (graduated in 2020)
Adnan Fekri, Hamad Bin Khalifa University (graduated in 2020)
Eman Mohammed Radi, Hamad Bin Khalifa University (graduated in 2019)
Ahmed Khalil Abdulla, Hamad Bin Khalifa University (graduated in 2018)
Navroz Shariff, City University of New York (graduated in 2015)
Anthony Sydney, City University of New York (graduated in 2014)

# TEACHING EXPERIENCE

#### 2016 - present Hamad Bin Khalifa University

Applied cryptography (graduate) – Fall'16, Fall'17 Network forensics (graduate) – Fall'18, Fall'19, Fall'20 Security risk analysis (graduate) – Spring'17, Spring'18 Introduction to computer systems – Spring'19 Principles of imperative computing – Spring'20, Spring'21 Cybersecurity fundamentals – Fall'19, Fall'20 2015 – 2016 **Michigan Technological University** Introduction to algorithms – Fall'15 Software quality assurance – Spring'16

# 2006 – 2015 John Jay College, City University of New York Applied cryptography (graduate) – Spring'12, Spring'14, Spring'15 Architecture of secure operating systems (graduate) – Fall'13 Database security (graduate) – Spring'11 Data communications forensics and security (graduate) – Spring'10, Spring'11 Theoretical foundations of computing security (graduate) – Fall'07 Forensic management of digital evidence (graduate) – Fall'06 Database systems – Spring'10, Spring'11 Advanced data structures – Fall'08, Fall'10, Fall'11, Fall'13, Fall'14 Object oriented programming – Fall'07, Fall'08, Fall'09 Programming languages – Spring'07 Introduction to computing and programming – Fall'06, Spring'08

- 2012 2013 Hong Kong University of Science and Technology Introduction to computing with Java – Fall'12 Network security – Spring'13
- 2001 2004 **University of Hong Kong** Queueing theory – Fall'01, Fall'02, Fall'03 System modeling and performance analysis – Spring'03, Spring'04
  - 1997 University of Southern California Design and analysis of computer communication networks (graduate) – Fall'97

# Administrative Experience

#### Hamad Bin Khalifa University

ICT Equipment and Facilities Committee, *Chair* (2018–present) ICT Admission and Student Affairs Committee (2018–present) ICT Research and Graduate Affairs Committee (2018–present) ICT Search and Promotion Committee (2018–present)

John Jay College, City University of New York

Major Coordinator (2014–2015) Departmental Curriculum Committee (2008–2011, 2013–2015) Departmental Personnel and Budget Committee (2009–2012) Faculty Senate Committee (2008–2011) College Council Committee (2008–2011) Institutional Review Board (IRB) Committee (2010–2012)

# PROFESSIONAL MEMBERSHIPS

2003 – present Association for Computing Machinery (ACM) 1999 – present Institute of Electrical and Electronics Engineers (IEEE)