

# Wai Y Mok

## Contact Information

**Building:** BAB  
**Room:** 350 E  
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## Current Position

**Position Title:** Chair, Information Systems, Supply Chain, and Analytics

## Professional Licensures & Certifications

**Title:** Faculty Ambassador: The 2020 cohort of the AWS Educate Cloud Ambassador Program  
**Organization:** AWS (Amazon Web Services) Educate Cloud Ambassador Program  
**Earned/Effective Date:** 2020-04-06  
**Title:** Oracle PL/SQL Developer Certified Associate  
**Organization:** Oracle  
**Title:** UAH Point of Contact  
**Organization:** AWS Academy  
**Title:** AWS Certified Cloud Practitioner  
**Expiration Date:** 2024-10-11  
**Organization:** AWS  
**License Number:** 66XB5DEDEBE4QK98  
**Earned/Effective Date:** 2021-10-11

## Scholarly Contributions and Creative Productions

1992

### Conferences

1. Mok, W, Y. Ng, Embley Y. K., and W. D. "An Improved Nested Normal Form for Use in Object-Oriented Software Systems." Hong Kong, 1992.

1994

### Conferences

1. Mok, W, Y. Embley, W. D, and Y. K. Ng. "Theoretical and Practical Implications of a New Definition for Nested Normal Form." Madras, India, 1994.

1996

### Journal Publication

1. Mok, W. Y., and D. W. Embley. "Transforming Conceptual Models to Object-Oriented Database Designs: Practicalities, Properties, and Peculiarities." *Lecture Notes in Computer Science* 1157 (1996): 309–24.
2. Mok, W. Y., Y. K. Ng, and D. W. Embley. "A Normal Form for Precisely Characterizing Redundancy in Nested Relations." *ACM Transactions on Database Systems* 21 (1996): 77–106.

1997

### Conferences

1. Mok, W, Y. Embley, and W. D. "An Approach to Efficient Data Clustering Based on a New Definition for Nested Normal Form," 1997.

#### Journal Publication

1. Mok, W Y., and D. W. Embley. "On Improving Dependency Implication Algorithms." *Information Processing Letters* 64 (1997): 135–141.
2. Mok, W. Y. "On Keys and Normal Forms." *Information Processing Letters* 62 (1997): 255–258.

1998

#### Journal Publication

1. Mok, W. Y., and D. W. Embley. "Using NNF to Transform Conceptual Data Models to Object-Oriented Database Designs." *Data & Knowledge Engineering* 24 (1998): 313–336.

2000

#### Conferences

1. Mok, W, and Y. "A Design Strategy of Object-Relational Databases," 2000.

2001

#### Conferences

1. Mok, W, Y. Paper, and P. D. "On Transformations from UML Models to Object-Relational Databases," 2001.

#### Journal Publication

1. Embley, D. W., and W. Y. Mok. "Developing XML Documents with Guaranteed Good Properties." *Lecture Notes in Computer Science* 2224 (2001): 426–41.

2002

#### Journal Publication

1. Mok, W Y., and D. P. Paper. "Using Harel's State Charts to Model Business Workflows." *Journal of Database Management* 13 (2002): 17–34.
2. Mok, Wai Y. "A Comparative Study of Various Nested Normal Forms." *IEEE Transactions on Knowledge and Data Engineering* 14(2) (2002): 369–85.

2003

#### Chapter

1. Paper, D., K. B. Tingey, and W. Y. Mok. "The Relation Between BPR and ERP Systems: A Failed Project," 45–60, 2003.
2. Paper, D., K. B. Tingey, Wai Y. Mok, and Parag C. Pendharkar. "The Myth of Enterprise Database Redesign," 123–148, 2003.

#### Conferences

1. Embley, D, W. Mok, and Y. W. "Producing XML Documents with Guaranteed 'Good' Properties," 2003.

2004

#### Chapter

1. Paper, D., W. Y. Mok, and J. Rodger. "Building Automation into Existing Business Processes," 177–194, 2004.

2. Mok, W. Y., and P. D. Paper. "Revisiting Workflow Modeling with Statecharts." Idea Group Publishing, 2004.

2005

Conferences

1. Mok, W, and Y. "XTFDs: FDs for XML Documents," 2005.

2006

Journal Publication

1. Mok, W. Y., and D. W. Embley. "Generating Compact Redundancy-Free XML Documents from Conceptual-Model Hypergraphs." *IEEE Transactions on Knowledge and Data Engineering* 18 (2006): 1082–96.
2. Mok, W. Y., P. Palvia, and D. Paper. "On the Computability of Agent-Based Workflows." *Decision Support Systems* 42 (2006): 1239–1253.

2007

Journal Publication

1. Mok, W. Y. "Designing Nesting Structures of User-Defined Types in Object-Relational Databases." *Information and Software Technology* 49 (2007): 1017–1029.
2. Mok, W. Y. "On Utilizing Variables for Specifying FDs in Data-Centric XML Documents." *Data & Knowledge Engineering* 60 (2007): 494–510.

2008

Conferences

1. Mok, W, Y. Fong, and J. "Service-Oriented Architecture, Web Service, XML and Higher Education." Hong Kong, 2008.

Journal Publication

1. Mok, W. Y. "Characterizing the MVDs That Hold in a Connected Subtree of a Join Tree: A Correction." *IEEE Transactions on Knowledge and Data Engineering* 20 (2008): 425–26.

2010

Journal Publication

1. Mok, W. Y., J. Fong, and D. W. Embley. "Extracting a Largest Redundancy-Free XML Storage Structure from an Acyclic Hypergraph in Polynomial Time." *Information Systems* 35 (2010): 804–824.

2011

Chapter

1. Embley, D. W., and W. Y. Mok. "Mapping Conceptual Models to Database Schemas," 123–163. Springer Berlin Heidelberg, 2011.

Journal Publication

1. Fong, J., W. Y. Mok, and H. Li. "Design Non-Recursive and Redundant-Free XML Conceptual Schema with Hypergraph (Extended Abstract)." *Lecture Notes in Computer Science* 6637 (2011): 40–52.

2013

Conferences

1. Warboys, I, Mok (Author), and Y. W. "Infusing Electronic Documentation into Clinical Teaching." Huntsville, AL, USA, 2013.
2. Webber, T., W Mok, Y. Cheung, and Y. K. "Proposed Use of Sharepoint to Improve New Employee," 2013.

2014

Conferences

1. Burns, L, A. Mok, Y. W, W Colley, and N. "Workflow Re-Engineering through Introduction of Concurrency." London, 2014.

Journal Publication

1. Warboys, I. E., W. Y. Mok, and K. H. Frith. "Electronic Medical Records in Clinical Teaching." *Nurse Educator* 39 (2014): 298–301.
2. Burns, L. A., W. Y. Mok, and W. N. Colley. "Introducing Concurrency to Workflows: Theory and A Real-World Case Study." *International Journal of Advanced Computer Science and Applications*, 2014, 52–64.
3. Mok, W. Y., J. Fong, and D. W. Embley. "Generating the Fewest Redundancy-Free Scheme Trees from Acyclic Conceptual-Model Hypergraphs in Polynomial Time." *Information Systems* 41 (2014): 20–44.

2015

Conferences

1. Mok, Rachel V., Wai Y. Mok, and Kit Y. Cheung. "A Security Price Data Cleaning Technique: Reynold's Decomposition Approach." Cusco, Peru: CEUR Workshop Proceedings (CEUR-WS.org), 2015.

Journal Publication

1. Mok, W. Y., J. Fong, and K. Wong. "Designing Redundancy-Free XML Schema: A Smallest Closure Approach." *International Journal of Cooperative Information Systems* 29 (2015).

2016

Journal Publication

1. Mok, W. Y., J. R. Mok, and K. Y. Cheung. "On Effort and Achievement of Business Undergraduate and Graduate Students under a Disastrous Event." *International Education Studies* 9 (2016): 230–41.
2. Mok, Wai Y. "Utilizing Nested Normal Form to Design Redundancy Free JSON Schemas." *International Journal of Recent Contributions from Engineering, Science & IT* 4 (2016): 21–25.

2017

Journal Publication

1. Mok, Rachel V., Wai Y. Mok, and Kit Y. Cheung. "A Security Price Data Cleaning Technique: Reynold's Decomposition Approach." *Communications in Computer and Information Science* 656 (2017): 108–19.

2018

Conferences

1. Mok, Wai Y. "On the Business Workflow Modeling Power with Respect to Petri Nets and UML Activity Diagrams," 2018.

Journal Publication

1. Mok, Wai Y., and Jonathan R. Mok. "Extracting Relevant Sentences from Past Court Decisions: An Important First Step of A Legal Deep Learning Research Project." *International Journal of Knowledge Engineering* 4 (2018): 17–20.
2. Mok, Wai Y. "Maximizing Control Flow Concurrency in BPMN Workflow Models through Syntactic Means." *Business Process Management Journal* 24 (2018): 357–83.  
H-index 90, accessed 7/18/2023, Business and International Management (Q1); Business, Management and Accounting (miscellaneous) (Q1)

2019

Conferences

1. Mok, Wai Y., and Jonathan R. Mok. "Legal Machine-Learning Analysis: First Steps towards A.I. Assisted Legal Research." Montreal QC, Canada: Association for Computing Machinery, 2019.  
Best conference in Legal AI
2. Mok, Wai Y., and Jonathan R. Mok. "Classification of Breach of Contract Court Decision Sentences." Montreal, QC, Canada: CEUR Workshop Proceedings (CEUR-WS.org), 2019.

Journal Publication

1. Mok, W, J. R. Mok, and Xiaotong Li. "XML Template Functional and Multivalued Dependencies Validation on Legal XML Documents." *International Journal of Cooperative Information Systems* 28 (2019): 22.  
2019 ABDC Journal Quality List: ranked A

2020

Conferences

1. Mok, Wai Y. "A Feasible Schema Design Strategy for Amazon DynamoDB: A Nested Normal Form Approach." IEEE, 2020.

Journal Publication

1. Que, Tingting, Wai Y. Mok, and Kit Y. Cheung. "Testing Multi-Factor Models in ADRs: Emerging Market vs. Developed Market." *International Journal of Accounting & Finance Review* 5 (2020): 10.  
2019 ABDC Journal Quality List: ranked C

2021

Conferences

1. Mok, Wai Y. "A Logical Database Design Methodology for MongoDB NoSQL Databases." Singapore (virtual): IEEE, 2021.
2. Mok, Jonathan R., Wai Yin Mok, and Rachel V. Mok. "Sentence Classification for Contract Law Cases: A Natural Language Processing Approach." São Paulo Brazil: ACM, 2021.

2024

## Conferences

1. Mok, Wai Y. "A Conceptual Model Based Design Methodology for MongoDB Databases."  
Honolulu, HI: IEEE, 2024.

## Academic, Government, Military and Professional Positions

**Start Year:** 2004  
**End Year:** 2017  
**Position:** Associate Professor  
**Organization:** The University of Alabama in Huntsville  
**City:** Huntsville

**Start Year:** 2011  
**End Year:** 2011  
**Position:** Research Fellow  
**Organization:** City University of Hong Kong

**Start Year:** 2010  
**End Year:** 2010  
**Position:** Research Fellow  
**Organization:** City University of Hong Kong

**Start Year:** 2009  
**End Year:** 2009  
**Position:** Senior Research Fellow  
**Organization:** City University of Hong Kong

**Start Year:** 2008  
**End Year:** 2008  
**Position:** Senior Research Fellow  
**Organization:** City University of Hong Kong

**Start Year:** 2007  
**End Year:** 2007  
**Position:** Research Fellow  
**Organization:** City University of Hong Kong

**Start Year:** 2001  
**End Year:** 2004  
**Position:** Assistant Professor  
**Organization:** The University of Alabama in Huntsville  
**City:** Huntsville

**Start Year:** 1999  
**End Year:** 2001  
**Position:** Assistant Professor  
**Organization:** Utah State University

**Start Year:** 1996  
**End Year:** 1999  
**Position:** Assistant Professor  
**Organization:** University of Akron

**Start Year:** 1993  
**End Year:** 1996  
**Position:** Research Assistant  
**Organization:** Brigham Young University

**Start Year:** 1994  
**End Year:** 1994  
**Position:** Instructor  
**Organization:** Brigham Young University

**Start Year:** 1992  
**End Year:** 1993  
**Position:** Assistant Lecturer  
**Organization:** Hong Kong Polytechnic

**Start Year:** 1992

**End Year:** 1992

**Position:** Software Engineer

**Organization:** Hong Kong Motorola