Benjamin GAN

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Education

PhD, University of Iowa, United States of America, 1995

Master of Science, University of Iowa, United States of America, 1989

Bachelor of Science, California State University, Fresno, United States of America, 1987

Academic Appointments

Associate Professor of Information Systems (Education), School of Computing and Information Systems, SMU, Jul 2012 - Present

Associate Professor of Information Systems (Practice), School of Computing and Information Systems, SMU, Aug 2005 - Jun 2012

Instructor/Teaching Assistant, University of Iowa (UI), United States of America, Jan 1987 - Jan 1995

Academic Administrative Positions

Academic Director, DHL-SMU Analytics Lab, School of Computing and Information Systems, SMU, Jul 2018 - Aug 2020

Member (School of Information Systems), University Tribunal, Office of the President, SMU, Jul 2017 - Jun 2023

Faculty Manager, IS Application Project (IS480), School of Computing and Information Systems, SMU, Jul 2012 - Jun 2020

Lead, IS480 IS Application Project, School of Computing and Information Systems, SMU, Jul 2008 - Jun 2012

Associate, Institute of System Science (ISS), National University of Singapore, Singapore, Jan 1998 - Jan 2005

Project Specialist, Institute of System Science, National University of Singapore, Singapore, Jan 1997 - Jan 1998

Other Positions and Affiliations

Member of Edge Team, Antares Alliance Group, United States of America, Jan 1996 - Jan 1997 Operations Planner, Antares Alliance Group, United States of America, Jan 1996 Project Leader, Antares Alliance Group, United States of America, Jan 1995 - Jan 1996 Senior Software Engineer, Antares Alliance Group, United States of America, Jan 1995
Software Engineer, Breakthrough Inc., United States of America, Jan 1990 - Jan 1995
Contract Programmer, Iowa City VA Medical Center, United States of America, Jun 1989 - Jan 1989

Professional Certifications

Certified Web Service Professional (Associate), NICC Singapore CWSPA/04/0001, Singapore, 2006 - 2007 Certified TOGAF 8 (Enterprise Architecture Express), Open Group, Singapore, 2005 - 2006 Certified Web Service Professional (Associate), NICC Singapore & XMLOne, Singapore, 2004 - 2005

Awards and Honors

Spring Singapore Quality and Standards Merit Award, Spring Singapore, 2016

National Day Award Public Administration Bronze Medal, Prime Minister's Office Singapore, 2015

Nominated for SMU Innovative Teacher, Singapore Management University, 2012

RESEARCH

Research Interests

Data Analytics in Logistic/Supply Chain
Capstone project based learning for software engineering
Technopreneurship in education
Global Software Project Management
Interaction Design and Prototyping
Object Oriented Analysis, Design (patterns) and Programming

Publications

Journal Articles [Refereed]

Enhancing students' global competence through international business study missions, by CHONG, Mark; GAN, Benjamin Kok Siew; MENKHOFF, Thomas. (2022). *Journal of International Education in Business, 15* (2), 1-20. https://doi.org/10.1108/JIEB-06-2020-0054 (Advance Online)

'TweetBoard': A case study of developing a micro-blogging platform for higher education, by HSU, Joyce Shao Cheh; GAN, Benjamin; LEE, Jin; LIM, Sheryl Shu Hui; LIM, Jeremy Xie Yan; MENKHOFF, Thomas; TAN, Sherman Si Xian; WOODARD, C. Jason; YAP, Qiu Cheng. (2016). *International Journal of Social Media and Interactive Learning Environments, 4* (4), 305-318. http://doi.org/10.1504/IJSMILE.2016.081272 (Published)

Incorporating microblogging ("tweeting") in higher education: Lessons learnt in a knowledge management course, by MENKHOFF, Thomas; CHAY, Yue Wah; BENGTSSON, Magnus Lars; WOODARD, C. Jason; GAN, Benjamin. (2015). *Computers in Human Behavior*, *51* 1295-1302. http://doi.org/10.1016/j.chb.2014.11.063 (Published)

Enhancing students' learning process through interactive digital media: New opportunities for collaborative learning, by GAN, Benjamin; MENKHOFF, Thomas; SMITH, Richard R.. (2015). *Computers in*

Human Behavior, 51 (Part B), 652-663. https://doi.org/10.1016/j.chb.2014.12.048 (Published)

Books (Refereed)

A Journey into the IT Jungle (2nd ed), by GAN, Benjamin; LEE, Yeow Leong; KOH, Lian Chee. (2008). Singapore: Prentice Hall. https://worldcat.org/isbn/9789810680503 (Published)

Edited Books

Premier e-Business cases from Asia, edited by LEE, Jae Kyu; GAN, Benjamin; SETHI, Vijay. (2006). Pearson Prentice Hall. (Published)

Conference Proceedings

Examining the Potential of Micro-Aerial Vehicles for Tree Inspections as Climate Change Education Tools., by Thomas Menkhoff, Benjamin Gan, Foong Shaohui.. (2024.0). 2023 International Conference on Computational Science and Computational Intelligence (CSCI), IEEE Xplore Digital Library: IEEE. (Forthcoming)

Sustainability Projects with a Community Partner, a social norm nudging effort, by Benjamin Kok Siew Gan, Thomas Menkhoff, and Eng Lieh Ouh. (2023.0). *IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE),* http://www.computer.org/cps: IEEE Computer Society Conference Publishing Services (CPS). (Forthcoming)

Class Participation, Using Technology to Enhance Efficiency and Fairness, by Benjamin Kok Siew Gan and Eng Lieh Ouh. (2023.0). *IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE)*, http://www.computer.org/cps: IEEE Computer Society Conference Publishing Services (CPS). (Forthcoming)

ChatGPT, can you generate solutions for my coding exercises? An evaluation on its effectiveness in an undergraduate Java programming course, by OUH, Eng Lieh; GAN, Benjamin Kok Siew, SHIM, Kyong Jin; WLODKOWSKI, Swavek. (2023.0). *ITiCSE 2023: Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education, Turku, Finland, July 10-12,* (pp. 54-60) New York: ACM. https://doi.org/10.1145/3587102.3588794 (Published)

Are you cloud-certified? Preparing computing undergraduates for cloud certification with experiential learning, by OUH, Eng Lieh; GAN, Benjamin. (2023.0). *Proceedings of the 2023 IEEE/ACM 45th International Conference on Software Engineering: Software Engineering Education and Training (ICSE-SEET), Melbourne, Australia, May 14-20,* (pp. 46-57) Los Alamitos, CA: IEEE. https://doi.org/10.1109/ICSE-SEET58685.2023.00011 (Published)

Engaging students through conversational chatbots and digital content: A climate action perspective., by MENKHOFF, Thomas; GAN, Benjamin. (2023.0). *Proceedings of the 9th International Conference on Human Interaction and Emerging Technologies (IHIET-AI 2023), Lausanne, Switzerland, April 13-15*, (pp. 334-347) New York, NY, USA: Accelerating Open Access Science in Human Factors Engineering and Human-Centered Computing. http://doi.org/10.54941/ahfe1002960 (Published)

An exploratory study of architectural style and effort estimation for multi-tenant microservices-based Software as a Service (SaaS), by OUH, Eng Lieh; GAN, Benjamin Kok Siew. (2023.0). *Proceedings of the 2023 IEEE 20th International Conference on Software Architecture Companion (ICSA-C), L'Aquila, Italy, March 13-17,* Los Alamitos, CA: IEEE. https://doi.org/10.1109/ICSA-C57050.2023.00043 (Published)

Designing flipped learning activities for beginner programming course, by GAN, Benjamin Kok Siew; OUH, Eng Lieh. (2022.0). *Proceedings of 28th AMCIS: Innovative Research Informing Practice, Minneapolis, 2022 August 10-14*

, (pp. 1-10) eLibrary: AIE eLibrary. https://aisel.aisnet.org/amcis2022/sig_ed/ (Published)

ITSS: Interactive web-based authoring and playback integrated environment for programming tutorials, by OUH, Eng Lieh; GAN, Benjamin Kok Siew; LO, David. (2022.0). 2022 44th IEEE/ACM International Conference on Software Engineering, Virtual, May 8-13: Proceedings, (pp. 158-164) Piscataway, NJ: IEEE. https://doi.org/10.1145/3510456.3514142 (Published)

Effective digital learning practices for IS design courses during COVID-19, by OUH, Eng Lieh; GAN,

Benjamin Kok Siew. (2021.0). *Proceedings of 27th Americas Conference on Information Systems, Virtual Conference, 2021 August 9-13,* (pp. 1-10) United States: AIS eLibrary. https://aisel.aisnet.org/amcis2021/is_education/ (Published)

Did our course design on software architecture meet our student's learning expectations?, by OUH, Eng Lieh; GAN, Benjamin Kok Siew; IRAWAN, Yunghans. (2020.0). *Proceedings of 2020 IEEE Frontiers in Education Conference (FIE), Uppsala, Sweden, October 21-24,* (pp. 1-9) Uppsala, Sweden: IEEE. https://www.fie2020.org/abstracts-and-papers/ (Published)

Experience report on the use of technology to manage capstone course projects, by GAN, Benjamin Kok Siew; OUH, Eng Lieh. (2020.0). *2020 IEEE Frontiers in Education Conference (FIE): Uppsala, Sweden, October 21-24: Proceedings,* (pp. 1-8) Piscataway, NJ: IEEE. https://doi.org/10.1109/FIE44824.2020.9274111 (Published)

Evaluating methods for students to identify and clarify doubts in computing design courses, by OUH, Eng Lieh; GAN, Benjamin Kok Siew. (2020.0). *2020 IEEE Frontiers in Education Conference (FIE): Uppsala, Sweden, October 21-24: Proceedings,* (pp. 1-9) Piscataway, NJ: IEEE. https://doi.org/10.1109/FIE44824.2020.9274170 (Published)

A longitudinal study of a capstone course, by GAN, Benjamin Kok Siew; OUH, Eng Lieh; LEE, Yin Yin Fiona. (2020.0). *Proceedings of the Americas Conference of Information Systems: 26th AMCIS 2020, Salt Lake City, UT, August 10-14,* (pp. 1-9) Atlanta: Association for Information Systems. (Published)

Vehicle routing problem for multi-product cross-docking, by GUNAWAN, Aldy; WIDJAJA, Audrey T.; GAN, Benjamin Gan Kok Siew; YU, Vincent F.; JODIAWAN, Panca. (2020.0). *Proceedings of the International Conference on Industrial Engineering and Operations Management 2020: Dubai, UAE, March 10-12*, (pp. 66-77) Southfield, MI: IEOM Society. (Published)

Designing learning activities for experiential learning in a design thinking course, by GAN, Benjamin Kok Siew; OUH, Eng Lieh. (2019.0). 2019 IEEE International Conference on Engineering, Technology and Education (TALE), Yogyakarta, Indonesia: (Presented)

ICT-TrAVEI: Mobile public transport companion for the visually impaired, by CUI, Linting; NGO, Kenny; GAN, Benjamin Kok Siew. (2016.0). *Proceedings of the Undergraduate Conference in Information Systems, CMU, Pittsburgh*, (pp. 1-6) Pittsburgh, USA: (Published)

Capstone course on facilitating Business Brainstorming in a Global Workplace, by LIM, Edison Jun Hao; GAN, Benjamin Kok Siew

. (2016.0). *Proceedings of the Undergraduate Conference in Information Systems, CMU, Pittsburgh, February 27, 2016,* Pittsburgh, USA: (Published)

Project sourcing for Capstone Course experience from an undergraduate program, by GAN, Kok Siew Benjamin; SHANKARARAMAN, Venkataramanan. (2015.0). SITE 2015: 26th International Conference of Society for Information Technology and Teacher Education: March 2-6, Las Vegas: Proceedings, (pp. 2795-2799) Chesapeake, VA: AACE. (Published)

Microblogging for engaged teaching and learning, by MENKHOFF, Thomas; GAN, Benjamin Kok Siew; WOODARD, Jason; CHAY, Yue Wah. (2014.0). *Proceedings of the IADIS International Conference Applied Computing: Porto, Portual, 25-27 October 2014,* (pp. 127-134) Porto: IADIS. (Published)

Evolving an Information Systems Capstone Course to Align With the Fast Changing Singapore Marketplace, by BOESCH, Chris; GAN, Benjamin Kok Siew. (2014.0). *Capstone Design Conference 2014 Proceedings: 2-4 June, Columbus*, (pp. 1-4) Columbus, OH: Capstone Design Conference. http://www.capstoneconf.org/resources/2014%20Proceedings/Papers/0065.pdf (Published)

Getting to Global Yes! Designing a Distributed Student Collaboration, by MANSAR, Selma Limam; WEINBERG, Randy; GAN, Benjamin Kok Siew. (2011.0). *ICEIS 2011: Proceedings of the 13th International Conference on Enterprise Information Systems: Beijing, China, June 8-11, 2011,* (pp. 229-234) Portugal: SciTePress. http://dx.doi.org/10.5220/0003490702290234 (Published)

Global Project Management: Pedagogy for Distributed Teams, by GAN, Benjamin Kok Siew; WEINBERG, Randy; MANSAR, Selma Limam. (2010.0). *Global Learn Asia Pacific 2010: May 17-20, 2010, Penang, Malaysia: Proceedings,* (pp. 1408-1417) Chesapeake, VA: AACE. http://www.editlib.org/p/34357 (Published)

Teaching "Global Project Management" with Distributed Team Projects, by WEINBERG, Randy; GAN, Benjamin. (2007.0). ED-MEDIA 2007: World Conference on Educational Multimedia, Hypermedia &

Telecommunications: June 25 - June 29, 2007, Vancouver, BC, Canada: Proceedings, (pp. 1954-1959) Chesapeake, VA: AACE. http://www.editlib.org/p/25637 (Published)

Conference Papers

How to and how much? Teaching ethics in an interaction design course, by WADHWA, Bimlesh; LIEH, Ouh Eng; GAN, Benjamin Kok Siew. (2020.0). 2nd Annual Symposium on HCI Education A (Virtual) CHI 2020 Symposium, Honolulu, USA, 2020 April 25–30, Hawaii, USA. (Published)

EzLog: Data visualization for logistics, by GUNAWAN, Aldy; GAN Benjamin; TAN, Jin An; VILLANUEVA, Sheena L.S.L; WEN, Timothy K.J.. (2019.0). *International Congress on Logistics and SCM Systems 14th ICLC 2019, Taipei, Taiwan, August 19-22,* Taipei, Taiwan. (Published)

Incorporating microblogging ("Tweeting") in higher education: Lessons learnt in a knowledge management course, by MENKHOFF, Thomas; CHAY, Yue Wah; BENGTSSON, Magnus Lars; WOODARD, Jason; GAN, Benjamin Kok Siew. (2014.0). *International Conference on Social Nets and New Media for Learning, Business, Collaboration, Innovation and Sustainable Development, 27-28 August 2014,* Nice, France. (Presented)

Object Interactions as First Class Objects: From Design to Implementation, by DODANI, Mahesh; GAN, Benjamin Kok Siew; Velazquez, Lizette. (1995.0). *Midwest Society for Programming Languages and Systems*, Purdue University. (Published)

Modeling Object Interactions as First Class Citizens, by DODANI, Mahesh; GAN, Benjamin Kok Siew; Velazquez, Lizette; YANG, Xiaohong. (1995.0). *Object-Oriented Programming, Systems, Languages and Applications Conference*, Portland, Oregon. (Published)

A Semantic Framework for Understanding the Behavior of Modules and Classes in Programming Languages, by DODANI, Mahesh; GAN, Benjamin Kok Siew. (1994.0). *Joint Modular Languages Conference,* University of Ulm, Germany. (Published)

Edited Conference Proceedings

SEED 2021

4th Software Engineering Education Workshop

QuASoQ 2021

9th International Workshop on Quantitative Approaches to Software Quality, edited by Benjamin Gan; Eng Lieh Ouh; Bimlesh Wadhwa; Shailey Chawla; Horst Lichter; Selin Aydin; Thanwadee Sunetnanta and Toni Anwar. (31/12/2021). Taipei: CEUR Workshop Proceedings. (Published)

SEED 2021 4th Software Engineering Education Workshop and QuASoQ 2021 9th International Workshop on Quantitative Approaches to Software Quality: Joint Proceedings of SEED & QuASoQ, Taipei [Virtual], December 6, edited by GAN, Benjamin; OUH, Eng Lieh; WADHWA, Bimlesh; CHAWLA, Shailey; LICHTER, Horst; AYDIN, Selin; SUNETNANTA, Thanwadee; ANWAR, Toni. (16/12/2021). Aachen University: CEUR Workshop Proceedings. http://ceur-ws.org/Vol-3062/ (Published)

Newspaper Articles

Enabling Singapore's youths to adapt in an era of climate change, by MENKHOFF, Thomas; CHONG, Mark; GAN, Benjamin Kok Siew. (2021, February 25). *Business Times (Singapore)*,21-21. https://www.smu.edu.sg/sites/default/files/smu/news_room/smu_in_the_news/2021/Feb2021/Feb25/202 10225-BT-Opinion-21-18x38-D.pdf (Published)

Theses and Dissertations

Compositions: A construct to specify object interactions in object-oriented programming languages (Doctoral dissertation), by GAN, Kok Siew Benjamin. (1995). Iowa: University of Iowa. (Published)

Posters

Lessons learnt from IT tools designed for a Capstone course, by GAN, Benjamin Kok Siew. (02 Dec 2019). 27th International Conference on Computers in Education, http://ilt.nutn.edu.tw/icce2019/dw/ICCE%202019_Accepted_Papers.pdf (Presented)

Others

Creating exceptional capstone learning experiences, by SAXTON, Matthew L.; KO, Andrew J.; GAN, Benjamin STURMAN, Richard; WALTERS, Julie, WASSER, Andy. (2018). In (1-3). https://ischools.org/the-iconference/about-the-iconference/iconference-2018-summary/ (Presented)

Papers Submitted for Review

Journal Articles [Refereed]

Effective incubation practices for accelerators and venture builders [under revision], by GAN, Benjamin Kok Siew; THNG, Patrick. (2020). *International Journal of Entrepreneurial Venturing,* (Under revision)

Research Grants

Singapore Management University

DHL-SMU Analytics Lab, DHL, PI (Project Level): Benjamin GAN, 2018, S\$600,000

Integrated Collaboration Environment (ICE) for Search, Explorer Grant, Singapore-MIT Alliance for Research and Technology (SMART), Co-PI (Project Level): Benjamin GAN, S\$50,000

Examining the Role of Participatory Climate Action as Effective Pedagogic Pathway towards Climate Mitigation and Adaptation Efforts, SMU Internal Grant, Ministry of Education (MOE) Tier 1, PI (Project Level): Thomas MENKHOFF, Co-PI (Project Level): Benjamin GAN, 2021, S\$71,915.01

Vehicle Routing Problem with a Reverse Cross-Dock, SMU Internal Grant, Ministry of Education (MOE) Tier 1, PI (Project Level): Aldy GUNAWAN, 2019, S\$86,000

A Journey into the IT Jungle - 2nd edition, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Benjamin GAN , Co-PI (Project Level): LEE Yeow Leong, 2008, S\$37,800.33

Explore pedagogy approaches in writing a book on Technology for Information Systems, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Benjamin GAN , Co-PI (Project Level): LEE Yeow Leong, 2006, S\$46,167.77

Asia E-Business Case Book, SMU Internal Grant, Ministry of Education (MOE) Tier 1, PI (Project Level): Benjamin GAN, 2005, S\$40,853.31

Other Institutions

NEC Solutions Lab in SIS, SMU, NEC Solutions Lab in SIS, SMU, NEC Asia Pacific Pte. Ltd. PI (Project Level): Benjamin GAN, 2016, SGD166,000

TEACHING

Courses Taught

Singapore Management University

Undergraduate Programmes:

Interaction Design and Prototyping

Introduction to Programming

IS Application Project

Overseas Project Experience (IS Technopreneurship)

Software Product Management

Technology Entrepreneurship Study Mission (Asia)

Technology Entrepreneurship Study Mission (Non-Asia)

Executive Development:

Program on Case Method and Participant-Centered Learning, Harvard Business School, 07 Jan 2006-07 Dec 2006

Teaching Publications

Cases

Singapore's e-Payment venture into Asia: eNETS. In Lee, Jae Kyu; Gan, Benjamin; Sethi, Vijay (Eds.) Premier e-Business cases from Asia, Chapter 15. Singapore: Pearson Prentice Hall., by GAN, Benjamin Kok Siew. (2007). http://worldcat.org/isbn/9789810676902 (Published)

OTHER ACADEMIC AND PROFESSIONAL ACTIVITIES

Consultancy

Leica Instrument Pte Ltd, Mar 2005 Knowledge Engineering Pte Ltd, Jan 1998 Abacus International Pte Ltd, Jan 1998

Media Contributions and Citations

Class in Singapore, classmates elsewhere (Shefali Rekhi, p36), The Sunday Times, 17 Jan 2010

UNIVERSITY SERVICE

Singapore Management University

Committee Chair, REC and SEC, Aug 2022 - Nov 2022

Committee Member, Dissertation Committee, May 2022 - Sep 2022

Committee Member, School Evaluation Committee, Apr 2022 - Jun 2022

Committee Chair, School Evaluation Committee & REC, Jul 2021 - Dec 2021

Deputy Chair, Library Advisory Committee, May 2020 - Present

Committee Member, Reading and Evaluation Committee, Apr 2020

Committee Member, School Evaluation Committee, Jul 2019

Committee Member, School Evaluation Committee, Jun 2019

Committee Member, School Evaluation Committee, May 2019

Committee Chair, Reading and Evaluation Committee, Jan 2018

Committee Member, The University Tribunal, Jul 2017 - Jun 2023

Committee Chair, Reading and Evaluation Committee, Jun 2016 - Aug 2016

Committee Member, Reading and Evaluation Committee, Jan 2016 - Feb 2016

Committee Chair, School Evaluation Committee, May 2014 - Aug 2014

Committee Member, SMU-X, Jan 2014 - Jan 2016

Committee Chair, Reading and Evaluation Committee, Jun 2011 - Jul 2011

University Senate Service, Faculty Senate, Jan 2011 - Jul 2014

University Senate Service, Faculty Senate, Jan 2009 - Jul 2010

SIS representative, IT Steering Committee, Jan 2008

Faculty Mentor, SIS Peer Mentor, Tutor and Study Center, Aug 2006 - Sep 2009

Faculty Advisor, Innovate IT, Jan 2006 - Jan 2014

EXTERNAL SERVICE - PROFESSIONAL

Workshop Organizer, Software Engineering Education Workshop , Asia Pacific Software Engineering Conference, 2021

Committee Member, Software Engineering Education Workshop, Asia Pacific Software Engineering Conference, 2020

Judge, IDA & SG50, Infocomm Development Authority of Singapore, 2014

Panel member, New Paradigms in IT PedagogyThe Globalization of IT Work, ACM SIG-MIS Computers and People Research, 2014

Committee Member, UCIS - Program Committee, Undergraduate Conference in Information Systems (UCIS) - Carnegie Mellon University, 2014 - 2016

Member of Review Panel, School of DMITDiploma in IT Courses, Singapore Polytechnic, 2013

Faculty Mentor, SMART (Singapore MIT Alliance for Research and Technology) Explorer grant for project ICE for Search (Baboonza, LoveByte), Singapore Management University, 2010 - 2011

Chairperson, CodeXtreme, IT Standards Committee, 2007 - Present

Faculty representative, Student Chapter, Singapore Computer Society, 2006 - 2009

Judge, National Software Competition, Algorithm Contest, Singapore Polytechnic, 2006 - 2011

EXTERNAL SERVICE - PUBLIC SECTOR AND COMMUNITY SERVICE

Judge, President's Technology Award, Agency for Science, Technology and Research, 2019

Member, Thought Leadership Committee, Singapore Computer Society, 2012 - 2014

Member, Council - since 04/2011 Special Working Group on Tech Scan & TC Review - since 07/2014 Special Working Group on Standards Education - since 10/2014, Information Technology Standards Committee, 2011 - Present

Director of Advisory Board, Executive Board, Singapore Testing Qualification Board, 2009 - 2012

Committee Member, National Information Competition, IDA, 2007 - 2011

Chairperson, CodeXtreme, IT Standards Committee, 2007 - 2019