Jonathan David CHASE

Office Address:
Yong Pung How School of Law
Singapore Management University
55 Armenian Street
Level B2 Room #10
Singapore 179943

Mailing Address:
School of Computing and Information Systems
Singapore Management University (SMU)
80 Stamford Road
Level 5
Singapore 178902

Email: jdchase@smu.edu.sg

Education

PhD, Nanyang Technological University, Singapore, 2017
Doctorate of Philosophy in Computer Science

MEng, University of Warwick, United Kingdom, 2011
Master of Engineering (Hons) in Computer Science (First Class)

Academic Appointments

Assistant Professor of Computer Science (Practice), Office of Core Curriculum and School of Computing and Information Systems, SMU, Jan 2022-Present

Research Scientist, Fujitsu-SMU Urban Computing and Engineering (UNiCEN) Corp. Lab and School of Computing and Information Systems, SMU, Feb 2017-Dec 2021

Project Officer, School of Computer Science and Engineering, Nanyang Technological University, May 2016-Dec 2016

RESEARCH

Research Interests

Classical and Quantum Optimization
Artificial Intelligence and its applications
Urban Computing & Smart City
Supply Chain Resiliency
Digital Transformation through AI

Publications

Journal Articles [Refereed]

J. Chase, D. Niyato, P. Wang, S. Chaisiri and R. K. L. Ko, "A Scalable Approach to Joint Cyber Insurance and Security-as-a-Service Provisioning in Cloud Computing," in *IEEE Transactions on Dependable and Secure Computing*, vol. 16, no. 4, pp. 565-579, 1 July-Aug. 2019, doi: 10.1109/TDSC.2017.2703626 (Published)

J. Chase and D. Niyato, "Joint Optimization of Resource Provisioning in Cloud Computing," in *IEEE Transactions on Services Computing*, vol. 10, no. 3, pp. 396-409, 1 May-June 2017, doi: 10.1109/TSC.2015.2476812 (Published)

Conference Proceedings

Chase, J., Phong, T., Long, K., Le, T., & Lau, H. C. (2021). GRAND-VISION: An Intelligent System for Optimized Deployment Scheduling of Law Enforcement Agents. Proceedings of the International Conference on Automated Planning and Scheduling, 31(1), 459-467 (Published)

J. Chase, D.T. Nguyen, H. Sun, H.C. Lau (2019). Improving Law Enforcement Daily Deployment Through Machine Learning-Informed Optimization under Uncertainty. Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 5815-5821 (Published)

J. Chase, J. Du, N. Fu, T. V. Le and H. C. Lau, "Law enforcement resource optimization with response time guarantees," *2017 IEEE Symposium Series on Computational Intelligence (SSCI)*, 2017, pp. 1-7, doi: 10.1109/SSCI.2017.8285326 (Published)

J. Chase, D. Niyato and S. Chaisiri, "Bring-Your-Own-Application (BYOA): Optimal Stochastic Application Migration in Mobile Cloud Computing," *2015 IEEE Global Communications Conference (GLOBECOM)*, 2015, pp. 1-6, doi: 10.1109/GLOCOM.2015.7417575 (Published)

J. Chase, R. Kaewpuang, W. Yonggang and D. Niyato, "Joint virtual machine and bandwidth allocation in software defined network (SDN) and cloud computing environments," *2014 IEEE International Conference on Communications (ICC)*, 2014, pp. 2969-2974, doi: 10.1109/ICC.2014.6883776 (Published)

System Demos

Chase, J., Phong, T., Long, K., Le, T., & Lau, H. C. (2021). GRAND-VISION: An Intelligent System for Optimized Deployment Scheduling of Law Enforcement Agents (System Demo). International Conference on Automated Planning and Scheduling, System Demo Track https://www.youtube.com/watch?v=jsxGKxXSeNs

TEACHING

Teaching Areas

Artificial Intelligence
Digital Transformation
Smart City & Urban Computing
Optimization/Planning and Scheduling