FWA Hua Leong

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Education

PhD, University of Newcastle, Great Britain, 2019

Master of Technology, National University of Singapore, Singapore, 2004

Bachelor of Engineering, Nanyang Technological University, Singapore, 2000

Academic Appointments

Senior Lecturer of Information Systems, School of Computing and Information Systems, SMU, Jan 2022 - Present

RESEARCH

Publications

Journal Articles [Refereed]

An architectural design and evaluation of an affective tutoring system for novice programmers, by FWA, Hua Leong. (2018). *International Journal of Educational Technology in Higher Education, 15* (1), 1-18. https://doi.org/10.1186/s41239-018-0121-2 (Published)

Modeling engagement of programming students using unsupervised machine learning technique, by FWA, Hua Leong; MARSHALL, Lindsay. (2018). *GSTF Journal on Computing, 6* (1), 1-6. https://doi.org/10.5176/2251-3043_6.1.114 (Published)

Fine-grained detection of programming students' frustration using keystrokes, mouse clicks and interaction logs, by FWA, Hua Leong. (2016). *Open Journal of Social Sciences, 4* (9), 9-18. (Published)

Conference Proceedings

Designing an overseas experiential course in data science, by FWA, Hua Leong. (2023.0). *Proceedings for IEEE International Conference on Teaching, Assessment and Learning for Engineering, Auckland, New Zealand, 2023, November 27 - December 1,* New Zealand: IEEE. (Accepted)

Investigating collaborative problem solving temporal dynamics using interactions within a digital whiteboard, by FWA, Hua Leong. (2023.0). *Proceedings of the 15th International Conference on Computer Supported Education, Lisbon, Portugal, 2023 April 21-23,* (pp. 363-373) Lisbon, Portugal: CSEDU. https://doi.org/10.5220/0012011500003470 (Published)

Unveiling the process of collaborative learning through the use of digital whiteboard historical action logs,

by FWA, Hua Leong. (2022.0). *Proceedings of the 30th International Conference on Computers in Education, Kuala Lumpur, Malaysia, 2022 November 28 – December 2,* (pp. 157-163) Kuala Lumpur: APSE. (Published)

Deep learning-based text recognition of agricultural regulatory document, by FWA, Hua Leong; CHAN, Farn Haur. (2022.0). *Advances in Computational Collective Intelligence: 14th International Conference, ICCI 2022, Hammamet, Tunisia, September 28-30: Proceedings,* (pp. 223-234) Cham: Springer. https://doi.org/10.1007/978-3-031-16210-7_18 (Published)

Fine-grained detection of academic emotions with spatial temporal graph attention networks using facial landmarks, by FWA, Hua Leong. (2022.0). *Proceedings of the 14th International Conference on Computer Supported Education, Virtual Conference, 2022 April 22-24,* (pp. 27-34) Setúbal, Portugal: Science and Technology Publications. https://doi.org/10.5220/0010921200003182 (Published)

Enhancing project based learning with unsupervised learning of project reflections, by FWA, Hua Leong. (2021.0). *ICDTE 2021: Proceedings of the 5th International Conference on Digital Technology in Education, September 15-17, Busan, Virtual,* (pp. 117-123) New York: ACM. https://doi.org/10.1145/3488466.3488480 (Published)

Deep learning of facial embeddings and facial landmark points for the detection of academic emotions, by FWA, Hua Leong. (2020.0). *ICIEI 2020: Proceedings of the 5th International Conference on Information and Education Innovations, July 26-28, London,* (pp. 111-116) New York: ACM. https://doi.org/10.1145/3411681.3411684 (Published)

Predicting non-completion of programming exercises using action logs and keystrokes, by FWA, Hua Leong. (2019.0). *Proceedings of the 2019 International Symposium on Educational Technology, Hradec Kralove, Czech, July 2-4,* (pp. 271-275) New York: IEEE. (Published)

Investigating multimodal affect sensing in an affective tutoring system using unobtrusive sensors, by FWA, Hua Leong; MARSHALL, Lindsay. (2018.0). *Proceedings of the 29th Annual Workshop Psychology of Programming Interest Group, London, 2018 September 5-7,* (pp. 78-85) London: (Published)

Automatic detection of frustration of novice programmers from contextual and keystroke logs, by FWA, Hua Leong. (2015.0). *2015 10th International Conference on Computer Science & Education (ICCSE): July 22-24, Cambridge: Proceedings,* (pp. 373-377) Pist: IEEE. https://doi.org/10.1109/ICCSE.2015.7250273 (Published)

Research Grants

Other Institutions

Autonomous and unobtrusive affect driven intervention for enhanced learning, MOE-TIF, MOE PI (Project Level): FWA Hua Leong, 2019, SGD181,162

TEACHING

Courses Taught

Singapore Management University

Undergraduate Programmes :

    Analytics Foundation

    Business Data Management

    Computational Thinking

Data Management

Overseas Project Experience (Data Analytics in Asia)

Software Project Management

Web Application Development I

Web Application Development II

Postgraduate Professional Programmes :

Data Management

Consultancy

Syngenta, Apr 2022 - Dec 2022