Curriculum Vitae

Associate Professor James Tan

Head, Business Analytics Programme

School of Business

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Education Qualifications

2009	PhD (Information Technology), Monash University
2005	MIT, Monash University
1995	BIT, University of Southern Queensland

Academic and Professional Experience

2019 - Present	Head of Programme, School of Business
2015 - 2018	Deputy Head of Programme, School of Business
2013 - 2015	Senior Lecturer, School of Business
2010 - 2013	Lecturer, School of Business
2009 - 2010	Postdoctoral Researcher, Monash University
2005 - 2009	PhD Candidate, Monash University
1999 - 2005	Senior Engineer, ST Electronics Engineering
1996 - 1999	Project Engineer, ST Electronics Engineering
1992 - 1996	Engineer, Smith Corona/Compaq Asia

Consultancy and Executive Experience

- Shanghai Rural Commercial Bank – Consultant for Executive Training
- SPSS Singapore - Associate Consultant
- Danfoss Asia Pacific – Consultant for Executive Training
- US Air Force Office of Scientific Research (AFOSR) – Researcher on Anomaly Detection
- Monash University – Researcher on Classifier Ensemble

Research Interests

- Business Analytics; Decision Tree; Anomaly Detection; Ensemble Learning; Clustering

Awards and Honours

- Best Paper Award. The First International Conference on Advanced Data and Information Engineering (DaEng-2013).
- Monash Postgraduate Publication Award – 2009
- Best presentation award. Evolutionary Clustering (IEEE Congress on Evolutionary Computation) – 2006
- Monash Graduate Scholarship – 2005
- Monash International Postgraduate Scholarship – 2005

Selected Publications

Refereed Journal Articles:

- **S.C. Tan** & J. Tan (2018). Blind spots in Star Coordinate Visualization: Analysis and correction. Pattern Recognition Letters. 106. 7-12.
- K.M. Ting, G.T. Zhou, L.T. Fei & **S.C. Tan** (2013). Mass estimation. Machine Learning Journal. 90(1), 127-160.
- **S.C. Tan**, K.M. Ting & S.W. Teng (2011). A General Stochastic Clustering Method for Automatic Cluster Discovery. Pattern Recognition Journal. 44(10-11), 2786-2799.
- K.M. Ting, J.R. Wells, **S. C. Tan**, S.W. Teng & G.I. Webb. (2011). Feature-Subspace Aggregating: Ensembles for Stable and Unstable Learners. Machine Learning Journal. 82(3), 375-397.
- **S.C., Tan**. (2003) An Object Oriented Timetabling Framework. International Journal of Information Technology. Singapore Computer Society. 9 (1), 31-46.

Book Chapter:

- **S.C. Tan** & P. Gupta (2023). Analytics in the Age of Disruption. In Leading in a Digitally Disruptive World. World Scientific. (Forthcoming)

Refereed Conference Papers:

- **S. C. Tan** (2023). Enhancing Regression Tree Predictions with Terminal-Node Anomaly Detection. The 6th Artificial Intelligence and Cloud Computing Conference (AICCC 2023). ACM Conference Proceedings (ISBN: 979-8-4007-1622-5). Dec 2023.
- **S. C. Tan** & S. Zhu (2023). Binary search of the optimal cut-point value in ROC analysis using the F1 score. International Conference on Engineering Mathematics and Physics (ICEMP 2023). IOP Science Conference Proceedings. July 2023.
- D. Emmanuel, **S. C. Tan** & P. Gupta (2023). Analysing Online Review by Bank Employees: A Predictive Analytics Approach. The 25th International Conference on Information Integration and Web Intelligence (iiWAS2023). Springer Lecture Notes in Computer Science. (Dec 2023)
- **S. C. Tan** (2018). Improving Association Rule Mining Using Clustering-based Discretization of Numerical Data. International Conference on Intelligent and Innovative Computing Applications (ICONIC 2018).

- **S.C. Tan**, & J. Tan. (2017) Lost in translation: The fundamental flaws in star coordinate visualizations. International Conference on Computational Science (ICCS 2017).
- **S. C. Tan** & S. Tong (2016). Fast retrievals of test-pad coordinates from photo images of printed circuit boards. International Conference on Advanced Mechatronic Systems (ICAMechS 2016).
- **S.C. Tan** (2015) Using Supervised Attribute Selection for Unsupervised Learning. The Fourth International Conference on Advanced Computer Science Applications and Technologies (ASCAT 2015).
- **S.C. Tan**, P.S. Lau & X.W. Yu (2015) Finding similar time series in sales transaction data. The International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems.
- **S.C. Tan** & B. H. Sim (2014) A Pragmatic Approach to Summarize Association Rules in Business Analytics Projects. The International Conference on Technologies and Applications of Artificial Intelligence (TAAI 2014).
- **S.C. Tan**, S.H. Yip & A. Rahman (2014) One Pass Outlier Detection for Streaming Categorical Data. The 3rd International Workshop on Intelligent Data Analysis and Management.
- **S.C. Tan** (2014) Visualising Outliers in Nominal Data. The 8th International Conference on Knowledge Management in Organizations (KMO 2013).
- **S.C. Tan** & P.S. Lau (2014) Time series clustering: A superior alternative for market basket analysis. The First International Conference on Advanced Data and Information Engineering (DaEng-2013).
- **S.C. Tan**. (2012) Simplifying and improving swarm-based clustering. Congress on Evolutionary Computation (CEC 2012).
- **S.C. Tan**, K.M. Ting & T.F. Liu. (2011) Fast Anomaly Detection for Streaming Data. International Joint Conference on Artificial Intelligence (IJCAI 2011).
- **S.C. Tan**, K.M. Ting & S.W. Teng. (2011) Simplifying and Improving Ant-based Clustering. International Conference on Computational Science (ICCS 2011).