Haoyuan Zhang

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RESEARCH INTERESTS

Hierarchical Bayesian Models, Probabilistic Relational Models, Heuristic Algorithm, Safety and Reliability, Decision Making with Uncertainty.

EDUCATION

2015 - Present **Queen Mary University of London**, UK

Ph.D. in Computer Science

- Thesis: Using Bayesian Networks and Complex Data to Optimize Infrastructure Maintenance in Railways
- Supervisors: Dr. William Marsh, Prof. Norman Fenton, Prof. Martin Neil

2013 - 2014 **The University of Hong Kong**, HK

M.Sc. in Industrial Engineering and Logistic Management

- Thesis: Colour Petri Net – based Modelling for Integrated Process Planning and Scheduling (obtained highest grade among the department)
- Supervisor: Dr. Tak Nam, Wong

2009 - 2013 **Jinan University**, China

B.Sc. in Electronic Commerce

- Thesis: Tourism Supply Chain Collaborative Demand Forecasting Model based on Colour Petri Net (awarded for the best undergraduate thesis of Jinan University)
- Supervisor: Dr. Hua, Bai

PUBLICATIONS

[1] **Haoyuan Zhang,** D. William R. Marsh, 2018. Towards A Model-Based Asset Deterioration Framework Represented by Probabilistic Relational Models. *European Safety and Reliability Conference 2018 (ESREL 2018) (Submitted).*

[2] **Haoyuan Zhang**, Kaijian Li, Tak Nam Wong, Luping Zhang and Asheem Shrestha, 2018. A Colored Petri Net Approach to Aid Integrate Process Planning and Scheduling Optimized by Hybrid Genetic Algorithm and Simulated Annealing. *Expert Systems with Application (Submitted).*

[3] **Haoyuan Zhang,** D. William R. Marsh, 2018. Generic Bayesian Network Models for Making Maintenance Decisions from Available Data and Expert Knowledge. *Journal of Risk and Reliability(Accepted).*

[4] Hua Bai, **Haoyuan Zhang**, 2017. CPN Based Modelling of Tourism Demand Forecasting. *International Journal of Business and Management, 12(1), pp.28-35*.

[5] **Haoyuan Zhang,** D. William R. Marsh, 2016. Bayesian Network Models for Making Maintenance Decisions from Data and Expert Judgment. *European Safety and Reliability Conference 2016 (ESREL 2016), pp.1056-1063.*

[6] **Haoyuan Zhang**, Hua Bai, 2016. Simulation of Tourism Supply Chain Collaborative Demand Forecast. *International Conference on Applied Social Science Research (ICASSR 2015), pp.659-662.*

ACADEMIC EXPERIENCE

2016 - 2018 **Teaching Assistant**

- ECS647U - Bayesian Decision and Risk Analysis, ECS650/ECS789 - Database Systems, ECS401U - Procedural Programming (Java)

2015 - 2017 **Participant**

- Rail Research UK Association (RRUKA) Annual Conference 2015, 2016, 2017

2016 - 2017 **Demonstrator**

- EBU6606 - Product Development, EBU6402 - Enterprise Management

2016 **Invited Participant**

- Workshop: The nature of questions arising in court that can be addressed via probability and statistical methods (FOSW01) by Isaac Newton Institute, University of Cambridge

2010 - 2013 **Teaching Assistant**

- Operations Research, Logistics Management, Supply Chain Management

OTHER ACTIVITIES

2016 - Present **Ph.D. Research Committee Representative**

- Represent Risk and Information Management Group of EECS, QMUL

2014 - 2015 **Manager Trainee,** Liguo Steel Group (HK) Limited

- Worked on commodity shipping, trading and financing