



Qibo Yang

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EDUCATION

University of Cincinnati (UC), Cincinnati, OH	08/2016 – present
• Ph.D. Candidate in Mechanical Engineering	
Beihang University (BUAA), Beijing, China	09/2013 – 01/2016
• Master of Engineering in Control Science and Engineering	
Beihang University, Beijing, China	09/2009 – 07/2013
• Bachelor of Engineering in Quality and Reliability Engineering	

RESEARCH EXPERIENCE

Project with Shanghai Electric Corporation, UC, OH	2/2017 - present
• Developed wind power prediction algorithms, and wrote the report for parameter selection.	
Project with China State Shipbuilding Corporation, UC, OH	04/2017 - present
• Developed a fault diagnostics toolbox.	
Feasibility Study on HIWIN Rehabilitation Machine, UC, OH	11/2016 - present
• Wrote a literature survey and IRB application for the development of a cyber assistant for a robotic gait training system.	
Mishap Mechanisms in Complex Systems and Rehearsal Methods Based on Functional Resonance Analysis Method (FRAM), National Natural Science Foundation of China, BUAA, Beijing, China	07/2013 – 01/2016
• Used formal methods to describe functional variability, and then applied model checking to analyze functional hazards, which can find emergent hazardous scenarios of complex socio-technical systems.	

PUBLICATIONS

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- Yang, Q., Tian, J., and Zhao, T. (2017). Safety Is An Emergent Property: Illustrating Functional Resonance in Air Traffic Management with Formal Verification. *Safety Science*.
 - Tian, J., Wu, J., Yang, Q., and Zhao, T. (2016). FRAMA: A Safety Assessment Approach Based on Functional Resonance Analysis Method. *Safety Science*.
 - Yang, Q., Tian, J., and Liu, F. (2016). Aircraft-deck Landing Safety Analysis Based on Bayes Discriminant Method. *Systems Engineering and Electronics*, Beijing, China.
 - Yang, Q., and Tian, J. (2015). Model-Based Safety Assessment using FRAM for complex systems. In *Proceedings of the 25th Annual European Safety and Reliability Conference*, Zurich, Switzerland.
 - Yang, Q., and Tian, J. (2015). A Formal Approach to Causal Analysis based on STAMP (CAST). In *Proceedings of the 1st International Conference on Reliability Systems Engineering*, Beijing, China.

EXTRACURRICULAR ACTIVITIES

Committee Member, 18th Graduate Student Council, BUAA, Beijing, China	11/2014 - 11/2015
Vice President, Graduate Student Union of School of Reliability and Systems Engineering, BUAA, Beijing, China	12/2013 - 12/2014

OTHERS

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- Software: Python, Spark, Matlab, R, LabVIEW, C, Pascal, SAS, Minitab, Git, MTConnect, Model Checker (NuSMV, SPIN, PAT), Linux (Ubuntu), LaTeX, AutoCAD, CAXA,
 - Honor & Award: Excellent Graduate of BUAA (2016), Outstanding Student Cadre of Graduate President Scholarship of BUAA (2015), Outstanding Graduate Student of BUAA (2014), etc.
 - Language: Chinese (native), English (proficient), German (elementary)
 - Hobbies: badminton, photography, singing