Shifu Yan

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EDUCATION

East China University of Science and Technology   *Shanghai, China*
Bachelor of Engineering in Automation   *Sep 2013 - Jun 2017*
- GPA: 3.7 / 4.0 (#2 / 84).
- Honors/Awards: First-class academic scholarship (#1 / 84; 2016), Excellent Student Award (2014 - 2016).
- Relevant Coursework: C/C++, MATLAB, Python, Artificial Intelligence, Process Control.

East China University of Science and Technology   *Shanghai, China*
Ph. D Candidate in Control Science and Engineering   *Sep 2017 - present*
- Honors/Awards: Academic scholarship (#1/79; 2018), Excellent Student Award (2018).
- Research interest: Machine learning, Deep learning, Statistical process monitoring, Soft sensor.

RESEARCH EXPERIENCE

East China University of Science and Technology   *Sep 2017 - present*
Key Laboratory of Advanced Control and Optimization for Chemical Process Ministry of Education
- Topic: Key performance indicator related predicting and monitoring based on deep learning; Data-driven plant-wide nonlinear process monitoring.
- Content: Identify abnormal production conditions by detecting outliers in the complex multivariate data in industrial processes based on machine (deep) learning and statistics; predict and monitor key-performance-indicators that are not collected in time to reduce unnecessary downtime and economic losses.
- At present, 3 papers has been published (first author); 3 papers are under reviewed (first author); 3 papers under reviewed (second author).

PROFESSIONAL EXPERIENCE

Custom product design based on 3D printing   *Jan 2016 – Jun 2017*
National innovation project for college student
- Responsible for developing plugin for rapid modeling in SolidWorks using VBA.

Data-driven prediction of key components of phenolic resin   *Aug 2018 – present*
Work for Red Avenue, a public company
- Responsible for modeling the production process based on support vector machine, Intelligent optimization algorithm, neural networks and developing software using Python for guiding the production to increase profit.
- At present, a software copyright has been resisted; a Chinese patent is under reviewed.

PUBLICATIONS

Shifu Yan, Junping Huang and Xuefeng Yan. *"Monitoring of quality-relevant and quality-irrelevant blocks with characteristic-similar variables based on self-organizing map and kernel approaches."* *Journal of Process Control*, vol. 73, pp. 103-112, Jan. 2019. (*JCR: Q2; IF: 3.316*)

Shifu Yan, Xuefeng Yan. *"Using Labeled Autoencoder to Supervise Neural Network Combined with k -Nearest Neighbor for Visual Industrial Process Monitoring."* *Industrial & Engineering Chemistry Research*, vol. 58, no. 23, pp. 9952-9958, May. 2019. (*JCR: Q1; IF: 3.375; Published as supplementary Cover*)

Shifu Yan, Xuefeng Yan. *"Design teacher and supervised dual stacked auto-encoders for quality-relevant fault detection in industrial process."* *Applied Soft Computing*, vol. 81, Aug. 2019. (*JCR: Q1; IF: 4.873*)

HONORS & AWARDS

Shanghai Scholarship (Highest scholarship in China, #4 / 84)   *Sep 2015*

National Mathematical Modeling Competition (2nd Prize in Shanghai)   *Nov 2015*

National Scholarship (#1 / 84)   *Sep 2016*

Excellent Graduate in Shanghai   *Jun 2017*