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: 3.7448 / 4.0 (rank: 2 / 84).
- Honors/Awards: First-class academic scholarship (rank: 1 / 84; 2016), Excellent Student Award (2014 - 2016).
- Relevant Coursework: C/C++, MATLAB, Python, Artificial Intelligence, Automatic Control.

East China University of Science and Technology *Shanghai, China*
Ph. D Candidate in Control Science and Engineering *Sep 2017 - present*

- Honors/Awards: First-class academic scholarship (rank: 1 / 79; 2018), Excellent Student Award (2018).
- My research interests include Machine (Deep) learning, Anomaly (Outlier) detection and I am dedicating to the applications of such algorithms in the real world like 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: 1) Identify abnormal production conditions by detecting outliers in the complex multivariate data in industrial processes based on machine (deep) learning and statistics; 2) Predict and monitor key performance indicators that cannot be measured in time to reduce unnecessary downtime and economic losses.
- At present, 3 papers has been published (first author); 4 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 a plug-in for rapid modeling in SolidWorks using VBA.

Data-driven prediction of key components of phenolic resin *Aug 2018 – present*
Cooperate with Red Avenue, a public company

- Responsible for modeling the production process using support vector machine, Intelligent optimization algorithm, neural networks and developing relevant software using Python for guiding the production to increase profit.
- At present, the software is registered and running for 4 months,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 (#4 / 84)	*Sep 2015*
National Automation Application Competition hosted by Rockwell (first prize)	*Aug 2016*
National Scholarship (Highest scholarship in China, #1 / 84)	*Sep 2016*
Excellent Graduate in Shanghai	*Jun 2017*