

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 (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: 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: Identify abnormal production conditions by detecting outliers using the complex multivariate data in industrial processes based on machine (deep) learning and statistics; predict and monitor key performance indicators that cannot be 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 plug-in 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 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 has been registered and 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