National Science Foundation (NSF)
Industry/University Collaborative Research Center for
Intelligent Maintenance Systems

www.imscenter.net

Runfeng Tian

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HIGHLIGHT

- Comprehensive knowledge in Prognostics and Health Management (PHM) and industrial big data analytics. Broad mechanical engineering background and interest in manufacturing, automotive and electronics industry.
- Excellent academic writing and communication skills. Strong responsibility and self-motivation.

EDUCATION

University of Cincinnati Aug 2017 – Present

- Master of Science in Mechanical Engineering

The Ohio State University Aug 2012 – May 2017

- Bachelor of Science in Mechanical Engineering
- Cumulative GPA: 3.10 (4.0 scale)

CURRENT RESEARCH EXPERIENCE

Project with **Mitsubishi Electric Corporation** Feb 2018 – Present

- Develop an algorithm for gearbox faulty detection and prediction.

Project with **Hitachi High-Technologies Corporation** Jan 2018 – Present

- Improve the model robustness for health assessment of semi-conductor manufacturing equipment.

Project with **China State Shipbuilding Corporation** Sep 2017 – Present

Phase III

- Transfer the MATLAB function of bearing envelope analysis and gearbox faulty detection into LabVIEW Vis.
- Compile algorithm modules documents.

Phase IV

UNIVERSITY OF Cincinnati

- Transfer the MATLAB code into Python code.

PREVIOUS EXPERIENCE

University of Cincinnati, Dept. of Mechanical Engineering, IMS Center

Project with **Kinpo ACCL** Oct 2017 – Jan 2018

- Transferred the MATLAB code into Python code.
- Realized functions of both detection and prediction of motor and sensor degradation.

Ohio State University, Dept. of Mechanical Engineering

Honda Center Pillar Redesign Project Nov 2016 – Dec 2016

- Modified the TLX center pillar layout to accommodate a Pilot style seat belt slide adjuster by using CATIA.

Constraint Device for Air Drone Project Oct 2016 – April 2017

- Designed a constraint device to monitor the motion of drone.
- Applied constraints to the drone when it reaches limited boundary.

Student Assistant of System Dynamics and Vibrations Sep 2016 – May 2017

- Graded homework weekly of the class of System Dynamics and Vibrations.

Automated Driving Lab Feb 2016 – April 2017

- Helped graduate students to design and testing automated driving vehicle.
- Worked on longitudinal control of the vehicle.

SOFTWARE PROFICIENCY

- MATLAB and Simulink
- Python
- Arduino
- LabVIEW
- SolidWorks
- CATIA

ACTIVITIES

Ohio State University

President of the Japanese Conversation Club

- Took charge of the club management hosted officer meetings.
- Collaborated with other officers and made decisions.
- Organized weekly general meetings and planned activities.

Secretary of the Japanese Student Organization

- Kept track of the officer meetings and managed the organization email.

CERTIFICATES

- Japanese-Language Proficiency Test Level N2 July 2013