

Cai, Haoshu, female, April. 1991

Email: caihu@mail.uc.edu

Education:

Nanjing University of Aeronautics & Astronautics, Nanjing China

Sep. 2014 – April. 2017

Master of Engineering

Major: Manufacturing Engineering of Aeronautics & Astronautics

Research: Data-driven Decision System for Large Discrete Manufacturing workshop

Advisor: Yu Guo

Nanjing Tech University, Nanjing China

Sep. 2009 – Jun 2013

Bachelor of Engineering

Major: Process Equipment & Control Engineering

Research Experiences:

Project Description: Logical and Physical Model in Large Discrete Workshop

Project time: Sept. 2014 – 2017

This program focused on the fusion of physical and logical spaces of discrete manufacturing workshop, aiming to qualify and quantify the influence of manufacturing data on the production process. I was responsible for the real-time manufacturing data management and analysis. I managed to develop the descriptions of physical and logical trajectories for Work-in-Process (WIP) throughout the production process based on the techniques of machining learning, data mining and intelligent algorithms. The task dealt with the problems about pattern extraction and production status prediction.

- Assess the application of wireless sensors and RFID devices
- Record and manage the manufacturing data collected by wireless devices
- Develop algorithms to analyze the WIP trajectory data
- Develop prediction models to predict probable status of WIP.

Publications:

- **Cai, Haoshu**, Yu Guo, Wen-an Yang & Kun Lu. 2017. "Mining Frequent Trajectory Patterns of WIP in Internet of Things based Spatial-temporal Database" International Journal of Computer Integrated Manufacturing, 30:12, 1253-1271.
- **Cai, Haoshu**, Yu Guo & Kun Lu. 2017. "A Location Prediction Method for Work-in-Process based on Frequent Trajectory Patterns". Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 1-15.

Skills Level:

Programming Languages:

Matlab, Python, C#

Software:

My SQL, CATIA, AutoCAD, ANSYS

Hobbies:

Table Tennis, Piano, Painting, Fiction Writing and Translation.