

## OBJECTIVE

Motivated graduate student majoring in Industrial Engineering looking for a **Data analysis** related position where I can use my data skills combined with industrial & mechanical background.

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## SUMMARY

- Specialization in analysis of variation, regression, clustering and principle component and machine learning model for prediction
  - Proficiency in basic techniques of operations research and machine learning in decision making and system performance evaluation.
  - Expertise in the use of Arena to construct, verify and validate simulation models for various types of systems.
  - Industrial experience in Manufacturing Industry and Automobile R&D
  - Outstanding skills in project management and communication (Mandarin Chinese, English, limited proficiency German and Korean)
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## EDUCATION

- Industrial and Systems Engineering (M.S.)**, University of Michigan-Dearborn, Dearborn, MI (GPA 3.9/4.0) Sep. 2015-present
- **Courses: Multivariate Statistics, Database Systems, Reliability Analysis, Design and Analysis of Exp, Productions and Operations management, Operation Research, Simulations in Systems Design**
- Mechanical Engineering (exchange student), University of Michigan-Dearborn, Dearborn, MI Sep. 2014-Apr. 2015
- Mechanical Design, Manufacture and Automation (B.S.), Huazhong University of Sci. and Tech., Wuhan, China Sep. 2011-Jun. 2014
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## SKILLS

**Software:** MATLAB, SQL, Python, Arena, Abaqus, CATIA, AutoCAD, Microsoft Office (Excel, Word, PowerPoint)

**Language:** Professional working proficiency in English, Native proficiency in Chinese, limited proficiency of German and Korean

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## PROJECT

**Data analyst | Model quality improvement using multivariate statistical analysis**, U of M-Dearborn, Dearborn, MI

- Built a **Support Vector Machine** model based on the training data to predict the target value of testing intrusion responses data. Evaluated the relationship of the given data sets to define the training data to improve accuracy.
- By applying **Principle component analysis(PCA)**, converted the correlated variables from raw data into uncorrelated variables to represent the original data set. Eventually using regression model to predict the intrusion variables.
- Used the 300 data groups of each design variable versus test values and generated **Copulas** for each response versus individual design variable. Then predicted the value of targeted responses.

**Spatial data analyst | Web Analytics of popular online courses**

- Twitter API was used in the first phase to crawl large numbers of tweets containing and “beautiful soap” was used to crawl the reviews for the courses selected. Site Content Analyzer was used to find out what are the most popular courses for these websites.
- By doing this project I got familiar with python coding skills and business analytics skills

## PROFESSIONAL EXPERIENCE

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**Research Assistant** | Pedestrian Path Prediction, U of M-Dearborn, Dearborn, MI Sep. 2015- present

- Collect data from IMU and GPS sensors
- Implement PDR and Kalman filter to IMU data for path prediction
- Combine the result with the path prediction from GPS in order to enhance the accuracy

**Research Assistant** | prolonged seating fatigue analysis, U of M-Dearborn, Dearborn, MI Sep. 2015-

present

- Used EMG sensor Data collection
- Used IPI Mocap Studio to process motion frames recorded by motion capture camera

**Intern CAE Engineer** | BAIC Group Off-road Vehicle R&D, Beijing, China Jul. 2015- Aug. 2015

- Meshed the engine mount and doing a lot of practice of meshing different parts.
- Used the finite element software Hypermesh and Abaqus to analyze the static and dynamic characteristics of automotive rubber isolators and have a better understand the theory of vibration isolation.
- Learned the basic knowledge of NVH performance. Basic judgment to vehicle noise and vibration in different operating modes.

**Intern manufacturing engineer** | Beijing Hyundai Motor Company, Beijing, China Jul. 2014- Aug. 2014

- Got familiar with machining process of cylinder block, cylinder head and crankshaft
- Used fixtures on the production line and adjust the cutters
- Operated on the machine with numerical control system code.

**President** | Chinese Students and Scholars Association at U of M-Dearborn Dec. 2015- Present

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**Interests:** Automobiles, volunteer work, photography, cooking (Chinese food)