

Xiaowen Zhang

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EDUCATION

UNIVERSITY OF MICHIGAN
B.S.E. Mechanical Engineering
Minor - Computer Science
April 2016 | Ann Arbor, MI
College of Engineering
Cum. GPA: 4.0 / 4.0
Major GPA: 4.0 / 4.0

SHANGHAI JIAO TONG UNIVERSITY
Electrical Computer Engineering
April 2017 | Shanghai, China
College of Engineering
Cum. GPA: 3.62 / 4.0
Major GPA: 3.64 / 4.0

LINKS

Facebook:// xiaowen.zhang.988
LinkedIn:// seanxiaowenzhang

COURSEWORK

Dynamic System Design & Control
Automatic Control
Mechatronic System Design
Energy System Analysis
Advanced Mechanics of Materials
Logic Circuit Design
Programming & Data Structure
Computer Architecture

SKILLS

MECHANICAL

LTI System Control
Nonlinear System Modeling
Friction Compensation
Dynamic System Analysis
Modal Analysis • Machining

SOFTWARE

Simulink • Adams • Matlab • Labview
Solidworks Modeling & Simulation
Soloist • Dspace
Ansys • Mathematica

PROGRAMMING

Over 5000 lines:
C++ • Latex • HTML5 • MATLAB
Over 1000 lines:
CSS • Java • Javascript • PHP
jQuery • Bash Script
Familiar:
Python • MySQL • Verilog • XML

SUMMARY

Result-oriented computer science and mechanical engineer with background in robotics, web development, and system control. Strong research interest in machine learning, robotics, and artificial intelligence.

EXPERIENCE

MECHATRONICS & SUSTAINABILITY RESEARCH LAB

| Undergraduate Researcher
May 2015 - Aug 2015 | Ann Arbor, MI

- Worked with professor Chinedum Okwudire and Xin Dong to develop VAN, a novel vibration-assisted nano-positioning stage
- Investigated in non-linear friction behaviors
- Created a simulation model incorporating Cascaded PPI control
- Design an adaptive friction compensator with Particle Swarm Optimization
- Developed a working prototype

STRUCTURAL DYNAMICS CONTROL LAB

| Research Assistant
Jan 2015 - April 2015 | Ann Arbor, MI

- Worked with professor Ryan Harne and professor Kon-Well Wang to develop an **Active Metastable Module** for adaptive structures
- Proposed and developed a controllable, compact, and metastable mechanism that is potentially able to actively adapt to dynamic conditions

SHANGHAI JIAO TONG UNIVERSITY

| Teaching Assistant
Sept 2013 - Dec 2013 | Shanghai, China

- Worked with professor Mateusz Krzyzosiak in a physics class
- Held recitation session for undergraduate students
- Designed homework and exams

INTERNSHIP

EVE BY EVE'S | Web Developer

Aug 2015 - Present |

- Retrofit the old website and maintain the database regularly with MVC design pattern
- Rebuild an inventory and an order tracking database, which saves huge potential maintenance costs

QINGYUAN ELECTRICITY | Engineer, Mechanical Design

Jan 2013 - Apr 2013 | Chengdu, China

- Designed various mechanical components for hydraulic power plant with CAD softwares like SolidWorks, UG, etc
- Performed quality inspection on mechanical devices and blueprints examination

PUBLICATIONS

Xin Dong, Xiaowen Zhang, Chinedum E. Okwudire. *A novel approach for reducing the settling time of roller bearing nanopositioning stages using high frequency vibration*. Best Oral Paper Award, ASPE, 2015.