# **Ruofan Zhang**

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## **EDUCATION**

# Tsinghua University, China

09/2012 - 01/2015 (anticipated)

Master of Engineering Mechanical Design

#### Rhode Island School of Design, USA

06/2014 - 08/2014

**Summer Studies** 

Identity Design & Branding | Web Design

#### University of Tokyo, Japan

01/2013 - 03/2013

**Visiting Student** 

Micro Components & Systems for Nano / Molecular Engineering

## Tsinghua University, China

09/2008 - 07/2012

Bachelor of Engineering
Measurement Control and Technology

# **SKILLS**

# **Design Methods**

Think Aloud Requirement Analysis Function Decomposition Concept Prototyping Competitive Analytics Heuristic

# **Design Tools**

Illustrator InDesign Photoshop Dreamweaver AutoCAD Solidworks ANSYS MAXWELL HFSS

#### **Programming**

C MATLAB HTML/CSS JQuery/JavaScript

# RESEARCH EXPERIENCE

# Web Design

07/2014 - 08/2014

Participator | Rhode Island School of Design

- Gained knowledge in prototyping websites and cutting-edge design concepts
- Designed and hand-coded individual static portfolio website

#### **Identity Design & Branding**

06/2014-07/2014

Participator | Rhode Island School of Design

- Designed an identity system for an imaginary yogurt company
- Researched into visual language and created a mood board and color palette
- Adapted identity design to various contexts (logo, stationery set, story board and webpage)
- Created an identity manual

# **Grad Design Seminar II for IxD**

02/2014

Auditor | Carnegie Mellon University

- Discussed the current situation and development of co-design
- Simulated co-design process of a museum app

# Magnetron Sputtering System Modeling, Simulation and Optimization

08/2013-12/2014

03/2013-12/2014

Participator | Tsinghua University

- Modeled of direct current magnetron sputtering system
- Simulated the magnetic field distribution in coil-combination situations
- Optimized the motion law of magnetron

# Multidisciplinary Modeling, Simulation and Optimization of Intergrated Circuit Equipment

Participator | Tsinghua University

- Developed electromagnetic field simulation package of plasma enhanced chemical deposition (PECVD) based on secondary development of HFSS
- Simulated the electromagnetic distribution of PECVD chamber
- Designed and programmed electromagnetic simulation interface

# **PAPERS & PATENTS**

#### Dissertation

• A Research of Magnetron Sputtering System Simulation and Magnetron Field Parameter Optimization

#### **Patents**

 An Eccentric Rotating Magnetron Sputtering System Method of Quasi Laymen

No. 2013105751318 Date: 11/2013

• A Calculation Method of the Optimal Motion Law of Magnetron in Rotating System No. 2013101536990 Date: 04/2013

## **Software Copyright**

 Ansoft Encapsulation System 2014SR051361 No. Date: 04/2014

# **HONORS & AWARDS**

 Third-class Social Work Scholarship Tsinghua University

2011

 Outstanding Representative of Social Work 2011 Tsinghua University

• Outstanding Member in Students' Union the Department of Precision Instrument, Tsinghua University 2010

# **INTERESTS**

Reading Sketching Running Dramas & Musicals

# LANGUAGES

English (fluent) Chinese (native) Japanese (basic)

# RESEARCH EXPERIENCE (CONTINUED)

# Micro Needle Fabrication **Using Electrical Discharge Machining**

Participator | the University of Tokyo

- Analyzed the parametric space of discharge machining
- Processed the ladder-type probe

## **Rotatable Chair Design**

06/2011-07/2011

01/2013-03/2013

Team Leader | Tsinghua University

- Designed the prototype with both 2D sketch and 3D model
- Analyzed the capability and usability of components
- Simulated the assembly process

# **Shopping Robot Design, Manufacture** and Assembly

02/2011-06/2011

Team Leader | Tsinghua University

- Designed, manufactured and assembled the arm subsystem of the robot
- Integrated the design results of all the team members and finished the final report and project presentation

## The Circuit Design of One-Minute-Bounce Counter 07/2010-08/2010

Member | Tsinghua University

- Designed the modular circuit
- Used capacitance resistance components to set up the circuit and conducted function debugging

#### **Metalworking Practice**

08/2009-09/2009

Member | Tsinghua University

• Learned to operate the machine tools, such as lathes, milling machines, planers, the grinding machines

# SOCIAL AND EXTRACURRICULAR ACTIVITIES

#### Post-disaster Reconstruction in Sichuan Province

04/2011

Campus Media Representative of Tsinghua University

- Spot-visited the 5/12 Wenchuan Earthquake stricken areas and interviewed local government officials and residents
- Improved interpersonal communication skills, coordinative capacity as well as adaptability
- Published reports on China Youth Daily

## **Future Global Leaders Program**

08/2010

Participator | University of California, San Diego

- Discussed with professors and students of UCSD about the current political and economic affairs
- Gained experience in communicating with people of different cultral background

#### Zijing Newspaper

03/2009-06/2012

Journalist, Layout Designer, Deputy Editor | Tsinghua University

- Learned basic concepts of layout design
- Led the edit of the character page
- Managed the organization, prototype and design of the special edition of centennial celebration of Tsinghua University
- Improved communication skills through interviews