

# Han Zhang

469 - 450 - 6859

han.zhang1129@gmail.com

zzz-icy.github.io

Dallas, TX 75206

## EDUCATION

### Southern Methodist University (GPA-3.73/4)

Soochow University

Xi'an University of Posts and Telecoms

### M.S. in Computer Science

M.S. in Electrical Engineering

B.S. in Electrical Engineering

09/2016 - 05/2018

09/2011 - 07/2014

09/2007 - 07/2011

## SKILL

<b>Languages:</b>	• JavaScript	• Python	• Java	• HTML/CSS	• PHP	• SQL(MySQL)
<b>Frameworks/Tools:</b>	• AngularJS	• jQuery	• Bootstrap	• Slim(PHP)	• Jupyter	• Git
<b>Previous experience:</b>	• C	• Verilog	• NIOS IDE / Quartus II	• Altium Designer 10		

## PROJECTS

### Wireless Sensor Network Model and Visualization

- Modeled Wireless Sensor Networks using Random Geometric Graph in order to simulate the selecting of communication backbones in WSN.
- Visualized the process as an interactive web application based on JavaScript, jQuery and HTML5 Canvas.
- Applied Smallest-Last Coloring algorithm to solve the core problem of selecting in linear time.
- Displayed statistic information using CanvasJS API.

### Web Application - Product Inventory Manager

- Developed a product inventory where users can add, update, delete, activate and deactivate products from inventory.
- Implemented using AngularJS, Bootstrap UI for product edit, PHP Slim to create data provider / RESTful API and MySQL for the database.
- Gained experience on breaking real-world problems down into small, manageable steps, and develop in MVC pattern.

### Web Application - Suggestion Box

- Aims to implement a web application where users can vote, write and comment on suggestions to help managers gather opinions on specific problems.
- Developed using Bootstrap and AngularJS.
- Debugged and tested using Chrome DevTools and http-server node package for NPM.

### Wine Quality Prediction - Machine Learning

- Aims to provide guidance to vineyards regarding quality and price expected on their produce without heavy reliance on volatility of wine tasters.
- Created a combined wide and deep network using TensorFlow to identify wine of good quality, and evaluated generalization performance.
- Performed feature dimension reduction and feature manipulation to analyze top factors that influence wine quality.
- Implement in Jupyter notebook using TensorFlow, Scikit-learn, NumPy, Pandas, Matplotlib and Seaborn.

### Interactive Product Design - Streams

- Aims to create an integrated platform providing users greater control over multiple social media feeds on mobile device.
- Collaboratively developed UI/UX adopting rapid contextual method, created user journey and turned UX mockups to hi-fi prototype on Proto.io.

## WORK EXPERIENCE

### Electronics Assembly Technologist

Shanghai Aerospace Equipment Manufacturer

07/ 2014 - 07/2015

Created technical documents of electronic assembly and Supervised and coordinated the whole production process

### Hardware Testing Intern

Institute of Acoustics, Chinese Academy of Sciences

03/2013 – 12/2013

- Participated in MEMS Accelerometer Servo ASIC Development, the National Science and Technology Major Project.
- Develop an automatic parameters extraction system, based on FPGA and NIOS II soft core using Verilog HDL and C, for performance analysis of accelerometer currently being used for structural health monitoring.

## PUBLICATION

MEMS Analog Feedback Acceleration Sensor and its Testing, Vol.32, No.4 Pt.2 Aug. 2013, Technical Acoustic

## PATENTS

A Serial Bus Communication Bridge, Soochow University Patent Number: 201420121985.9

## AWARDS/ACTIVITIES

Excellent Graduate (2014)  
Business English Certificate, Vantage  
Mustang Heroes / Stampede of Service