# Han Zhang

### SKILL SET

Languages: • JavaScript • Python • Java • HTML/CSS • SQL

Frameworks/Tools: • jQuery • AngularJS • Jupyter • TensorFlow • NumPy/Pandas/Matplotlib • Git

Previous experience: • C, Verilog HDL, Altium Designer 10, NIOS IDE, Quartus II

#### **PROJECTS**

## **Wireless Sensor Network Visualization**

• Implemented the process of graph coloring and bipartite subgraphs selection, which simulates the selecting process of communication backbones in a WSN.

## **Machine Learning in Python**

- Exploring Table Data San Francisco Salaries
  - Perform Logistics Regression based on a prediction task
- Exploring Image Data Street View House Number
  - Investigate two convolutional neural network architectures using TensorFlow.

## Web Application - Suggestion Box using AngularJS

- The nominal purpose is to gather suggestions.
- Users can up or down vote, bringing the most popular suggestions to the top of the list.

## **Interactive Product Design - "Streams"**

- Worked in group to develop UI/UX of "Streams", an interactive mobile application.
- A High-Fidelity prototype on Proto.io as final output.

- Visualized the process as an interactive web application based on JavaScript, jQuery and HTML5 Canvas
- Based on the Smallest-Last Ordering algorithm
  - Evaluate two different deep learning architectures and tune hyper-parameters.
- Exploring Text Data Yelp Dataset Reviews
  - Investigate two recurrent neural network architectures to improve generalization.
- Allow users to input suggestions into and display.
- Allow users to comment on suggestions already submitted.
- "Streams" aims to provide users a greater control over the content in their social media feeds.
- Great experience sharing ideas with creative minds.

#### **WORK EXPERIENCE**

Electronics Assembly Technologist Shanghai Aerospace Equipment Manufacturer

July 2014 - July 2015

- Created technical documents of electronic assembly for production of electronic modules of launch vehicles
- Supervised and coordinated the whole production process, including equipment, materials, operators, environmental experiments and inspection.

## **Hardware Testing Intern**

Institute of Acoustics, Chinese Academy of Sciences

Mar.2013 – Mar. 2014

- Participated in MEMS Accelerometer Servo ASIC Development, which is the National Science and Technology Major Project.
- Worked with ASIC designers to develop an automatic parameters extraction for the gravity field calibration of accelerometer.
- This accelerometer is currently being used for structural health monitoring.

#### ACTIVITIES

Mustang Heroes (2017)
 Stampede of Service (2016, 2017)
 Student Assistant, XUPT (2014)

#### **EDUCATION**

Southern Methodist University (GPA-3.73/4)	M.S. in Computer Science	2016 - Present
Soochow University	M.S. in Electrical Engineering	2011 - 2014
Xi'an University of Posts and Telecommunications (XUPT)	B.S. in Electrical Engineering	2007 - 2011

PUBLICATION PATENTS AWARDS

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

A Serial Bus Communication Bridge, Soochow University Patent Number: 201420121985.9 Excellent Graduate (SU, 2014)
Business English Certificate, Vantage