

# Weiting Zhan

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## Weiting Zhan

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Github : <https://github.com/WaitingZhan>

Google Scholar: <https://scholar.google.com/citations?user=cZWcPbwAAAAJ&hl=en>

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## Skills

Programming language : Python, Matlab, Java, HTML, CSS, JavaScript, IOS development.

Machine Learning skills:

Bayesian learning, Logistic Regression, K-Nearest Neighbor Network (KNN), Support Vector Machine, Decision Trees, Boosting, Convolutional neural network, Long Short-Term Memory Neural network. Extensive experience with TensorFlow.

Library: OpenCV, Python Image Library(PIL), sklearn, panda, TensorFlow.

Material research skills:

X-ray powder diffraction(XRD), Scanning Electron Microscopy (SEM), Transmission Electron Microscopy(TEM), Gas Chromatography(GC), Electrochemical Workstation.

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## Projects

### Computer Vision Projects

Sep 2017 - PRESENT, University of California, Santa Cruz

1. High dynamic range imaging

Heighten a picture's dynamic range by combine 2 different exposure time pictures.

2. Plane sweeping stereo

Calculate homography of 2 images, Warp the image using the homography. Compute the depth for each pixel.

3. Ballet position classification

Classifier: Logistic Regression, Generative Adversarial Network, Convolutional Neural Networks.

4. Human Emotion Detection and classification

Detect Smile and Sad in video.

Classifier: Generative Adversarial Network, Convolutional Neural Networks.

### Natural Language Projects

Sep 2017 - Nov 2017, University of California, Santa Cruz

1. Trump and Hillary Twitter Classification

Classifier: Logistic Regression, Support Vector Machine(SVM), Long Short-Term Memory Neural Network(LSTM),

2. Email Classification

Classifier: Logistic Regression, Support Vector Machine(SVM), Long

Short-Term Memory Neural Network(LSTM), Naive Bayes

### **IOS development**

Sep 2017 - Nov 2018, University of California, Santa Cruz

Ballet practice schedule

Ballet vocabulary with pronunciation. Custom designed practice Calendar.  
Practice reminder.

### **Solid Oxide Fuel Cell Projects**

Sep 2013 - Sep 2017, Shanghai Institute of Ceramics, Chinese Academy of Science. Shanghai, China.

Study Infiltration Method in Fabrication of reversible solid oxide cell.

Developed pre-industry 5 kW solid oxide fuel cell

Developed metal supported solid oxide fuel cell (MS-SOFC)

Co-electrolyzed H<sub>2</sub>O and CO<sub>2</sub> through Solid Oxide Fuel Cell (SOEC) test platform

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## **Education**

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### **University of California, Santa Cruz / Master of Computer Engineering**

Sep 2017 - PRESENT, University of California, Santa Cruz

### **Shanghai Institute of Ceramics, Chinese Academy of Sciences / Master of Material Engineering**

Sep 2014 - Sep 2017, Shanghai, China

### **Shanghai University / Master of Physics**

Sep 2014 - Sep 2017, Shanghai, China

### **Nanjing Tech University / Bachelor in Chemical Engineering**

Sep 2014 - Sep 2017, Shanghai, China

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## **Awards**

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First scholarship for outstanding student, SICCAS

International Graduate Student Exchange Program, SHU

National Graduate students Scholarship, SHU Outstanding Student of Shanghai University, SHU

No.7 of Aerobic Team Competition in Tenth University Sports Federation of Jiangsu Province, NJTU

Third prize of Mathematics Contest for College Students, NJUT

First scholarship for outstanding students, NJUT (Five times)

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## Publications

1. **Zhan, W.**, Zhou, Y., Chen, T., Miao, G., Ye, X., Li, J., Zhan, Z., Wang, S., Deng, Z., Long-term stability of infiltrated  $\text{La}_{0.8}\text{Sr}_{0.2}\text{CoO}_{3-\delta}$ ,  $\text{La}_{0.58}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$  and  $\text{SmBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{2.0}\text{O}_{5+\delta}$  cathodes for low temperature solid oxide fuel cells. *International Journal of Hydrogen Energy* 2015, 40(46), 16532-16539. (IF=3.58)
2. Zhou, Y., Chen, T., Li, J., Yuan, C., Xin, X., Chen, G., Miao, G., **Zhan, W.**, Zhan, Z., Wang, S., Long-term stability of metal-supported solid oxide fuel cells employing infiltrated electrodes. *Journal of Power Sources* 2015, 295, 67-73 (IF=6.39)
3. Miao, G., Yuan, C., Chen, T., Zhou, Y., **Zhan, W.**, Wang, S., Zhan, Z., Performance and degradation of metal-supported solid oxide fuel cells with impregnated electrodes. *Performance and degradation of metal supported solid oxide fuel cells with impregnated electrodes. International Journal of Hydrogen Energy* 2016, 41 (2), 1104-1111. (IF=3.58)
4. Juan, L., Yumei, L., Jun, G., Da, H., **Zhan, W.**, Shaorong W. Infiltrated  $\text{Sr}_2\text{Fe}_{1.5}\text{Mo}_{0.5}\text{O}_6/\text{La}_{0.9}\text{Sr}_{0.1}\text{Ga}_{0.8}\text{Mg}_{0.2}\text{O}_3$  electrodes towards high performance symmetrical solid oxide fuel cells fabricated by an ultra-fast and time-saving procedure. *Electrochimica Acta* 2017 (IF=4.79)
5. Shaorong Wang, Xing Hao, **Zhan, W.** Research on a low temperature reversible solid oxide cell. *International Journal of Hydrogen Energy*. 2017 (IF=3.58)
6. **Weiting Zhan**. Study of Infiltration Method in Fabrication of reversible solid oxide cell. Shanghai University Master's Dissertation 2017

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## Academic Activities

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### Visiting Center for Energy Research, University of California, San Diego

June 2016 -Sep. 2016 / Visiting Scholar

Review advances in Reversible Solid Oxide Fuel Cells with Prof. Nguyen Q.Minh

Revised article with Prof. Guntae Kim

Visited Bloom Energy and NorthWestern University's SOFC group

### 15th Shanghai Hydrogen Energy & Fuel Cell Exhibition

May 2014 / Exhibition Assistant

Built exhibition with group members

Introduced the advance of SOFC technology to company

### SOFC advance conferences at China University of Mining and Technology

Nov. 2013 / Conference coordinator

Received researchers and experts from all over the world

Assisted researchers during the lecture

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## Courses

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CMPS 201: Analysis Algorithms, CMPE 202: Computer Architecture,

CMPS 211: Combinatorial Algorithm, CMPE 252B- 01 Computer Communication

CMPE 264: Image Analysis/ Computer Vision, CMPS 290P: Machine learning of Data Privacy, CMPS 290C : Advance Machine Learning