

# Wenshuang Song Personal CV - [ Algorithm Engineer ]

• Github: <https://github.com/songwenshuang>

## Personal Info

Wenshuang Song

Algorithm Engineer

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

CSDN: [https://blog.csdn.net/sunshine\\_010](https://blog.csdn.net/sunshine_010)

## Education

- Renmin University of China  
Bachelor's Degree, Business Management  
From Sept. 2014 to Jul. 2017

## Research

- I'm interested in algorithms for visual perception (object recognition, localization, segmentation, pose estimation, ...) and visual reasoning (answering complex queries, often in natural language, about images) especially in the field of Medicine. My work explores topics in computer vision and machine/deep/statistical learning.

## Programming

- Writing readable code in C, Python, Matlab, etc. with daily practical experiences.
- Familiar with Caffe/Tensorflow/Pytorch and other training frameworks.
- Expert in computer graphics with a deep understanding of Convolution Neural Network.
- Familiar with parallel computing and skillful at using CUDA to achieve parallel programs on GPUs.
- Familiar with machine learning techniques, such as SVM, decision trees, neural networks, etc.
- Data visualization and GUI design.

## Tools

- Editor/IDE: Vim, Sublime Text, PyCharm CE, LaTeX, etc.
- Operating systems: Linux, Windows.
- Programming: Python, Matlab, C, etc.
- Others: Photoshop, Premiere, Office, AE, etc.

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## Project Experience

- Virtual Reality Laboratory, 2017.
- Pattern Recognition National Laboratory, 2016

## Selected Work

- On the Caffe2 framework, the Mask R-CNN is implemented to classify and detect the end to end of medical pathological images, and the response is improved, and the accuracy rate is 95%.
- Detect and recognise the malignant nodules in ultrasound images with improved SSD networks, which reaches the 98% accuracy in practice, which is beyond the ability of the doctors with 5-10 years experience.
- Implement a face recognition system for the BaiYun Airport to identify the ID card and the camera face are the same persons, which reaches the tpr to 97%@0.0001, including three main technologies: Ensembled CNNs, Inception Resnet and Triplet Loss.
- The algorithm of automatic detection and classification of thyroid ultrasonic nodules has been designed to achieve the accuracy of 98%, which the model is multi-scale and from coarse to fine.

## Selected Award

- Excellent Student Award, 2014
- Outstanding Graduate Award, 2017
- National Graduate Scholarship, 2017