## Ling Luo

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## Education

2012-2016

MASTERS in Information Security at Beijing University of Posts and Telecommunications. GPA:3.44/4.

Research focus: Machine Learning & Computer Vision

BACHELOR OF ENGINEERING in Information Security at Beijing University of Posts and Telecommunications. GPA:3,4/4 Rank: top 20%.

## Projects & Experiences

- Internship at Deepwise Co.Ltd Research Institute. We used deep learning methods to detect calcification and masses in mammograms(X-ray of breasts) as early diagnosis of breast cancer. As the main researcher, my work contains:
  - 1. Using faster-RCNN as baseline of calcification detection. This work was submitted to ECCV 2018.
  - 2. Develop mass detection and segmentation algorithms using bilateral mammograms based on Mask-RCNN. By redesigning data flow and network, differences between bilateral breasts are utilized which help reduce false positives and increase recall. This work has been productized and tested in several hospitals. More details can be seen in my blog.
- Reconstruction-based Robust Pavement Crack Detection: Proposed a novel network using reconstruction loss to enforce segmentation performance since crack detection is more like an abnormal detection task. This program is aimed for transportation maintenance, and the proposed method shows better generality among different road conditions.
- Wechat chatbot based on Rasa NLU: Developed an chatbot for Wechat by combining Rasa NLU(natural language understanding) Rasa Core(dialogue manager) and Wechat api. More details can be seen in my blog.
- Baidu Meizu deep learning Application Contest: Developed an attention-based arithmetic recognition algorithms for four fundamental admixture operations of arithmetic and ranked 8/206.
- Tianchi Lung Nodule Analysis Contest: Designed two networks to detect the nodule candidates and reduce false positive rate respectively and ranked **64/2887**. More details can be seen in my blog.

- Internship at Center for Speech and Language Technology (CSLT): Evaluated 6 word embedding models using NLP tasks to provide benchmark for new embedding models.
- The 5th National Colleges Information Security Contest: Designed and learned the features of manifest files and smali code to detect Android malware using Random Tree Algorithms.
- The Colleges Innovation Contest: Developed a mobile puzzle game with Unity 5.0 using C#.
- 2015 Mathematical Contest in Modeling: Proposed a routes optimization model for searching planes crashed in open water, which won **Honorable Mentioned** prize.

## Skills

Programming Python, Java, SQL, LTEX, MATLAB

Tools Git, Pytorch, Tensorflow, Caffe, Unity

Language Chinese Mandarin (native), English (TOEFL 304, IELTS 7.0, GRE 324)