

# Zhe Li

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**Address** Delft University of Technology  
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**Nationality** Chinese

## Education

**2017- now** PhD, Computer Science - Delft University of Technology, the Netherlands  
**Supervisors:** Prof. Alan Hanjalic, Dr. Julián Urbano  
Project: Multi-criteria Recommender Systems

**2014-2017** Master of Science (cum laude), Information and Communication Engineering, Tianjin University, China  
**Supervisor:** Prof. Wei Lu  
*Thesis: Data Analysis in Breast Cancer Computer-aided Diagnosis on Images*

**2000-2014** Bachelor of Engineering, Information and Communication Engineering, Zhejiang University, China  
**Supervisors:** Prof. Huiming Tang, Prof. Huimin Yu  
*Thesis: The Recognition of the Serial Number in Paper Currency*

## Published papers

**2018** Li Z. Towards the next generation of multi-criteria recommender systems[C]//Proceedings of the 12th ACM Conference on Recommender Systems. ACM, 2018: 553-557. .

**2017** Lu, W., Li, Z. and Chu, J.. Adaptive Ensemble Undersampling-Boost: A novel learning framework for imbalanced data. Journal of Systems and Software, 132, pp.272-282.

**2017** Lu, W., Li, Z. and Chu, J.. A novel computer-aided diagnosis system for breast MRI based on feature selection and ensemble learning. Computers in biology and medicine, 83, pp.157-165.

**2016** Li, Z., Lu, W., Min, H. and Chu, J.. Application of machine learning algorithms in breast tumor detection. Computer Engineering and Science, 11, pp.2303-2309 (in Chinese).

## Research experience

**Sep.2017 - current** Delft University of Technology, the Netherlands  
*Deep learning-based next-generation multi-criteria recommender systems.*

**Sep.2014 - Jan. 2017** Tianjin University, Tianjin, China  
*Computer Aided Detection & Diagnosis in breast cancer*

- Made comparisons between different classification algorithms on public breast cancer datasets.
- Proposed a novel and effective breast mass computer-aided diagnosis system.
- Proposed a novel algorithm to address the data imbalance problem.
- Proposed a framework for feature extraction and selection based on Relief algorithm and the subspace method.

- Jun.2016 -** Institute of Automation, Chinese Academy of Sciences, Beijing, China  
**Dec. 2016** *Data mining of breast cancer medical records*
- Analyzed the data and found the abnormal items.
  - Did a statistical analysis to the raw data.
  - Did clustering and association rules mining based on K-means and Apriori, respectively.
  - Developed a similar patient recommender system based on KNN.
- Nov.2013 -** Zhejiang University, Hangzhou, China  
**Jun. 2014** *Currency number recognition*
- Made the currency number segmentation based on accumulated projection.
  - Designed a kind of new feature to describe the characteristics of one specific number.
  - Made the classification based on template matching.

## Teaching experience

- Sept 2018 -** Delft University of Technology, the Netherlands  
*Co-supervisor in Master thesis "Video captioning based on Generative Adversarial Networks"*  
 Student: Fenglu Xu
- Feb 2018 -** Delft University of Technology, the Netherlands  
**Apr 2018** *Supervisor in the Bachelor Seminar project "RNN-based recommender systems"*  
 Students: Kaan Yilmaz, Jelle Vos, Tim Rietveld

## Internship experience

- Mar 2017 -** SenseTime Group Ltd., Beijing, China  
**Jul 2017** *R&D intern in data mining, computational advertising, and recommender systems*
- Jun 2016 -** National Laboratory of Pattern Recognition, Institute of Automation, China Academy of Sciences, China  
**Dec 2016** *R&D intern in machine learning and data mining focusing on association rule mining*
- Mar 2016 -** Toshiba Medical Systems, Beijing, China  
**Sep 2016** *Research intern in machine learning and medical imaging focusing on object detection*

## Professional Skills

- **Programming languages:** C, Matlab, Python, Verilog HDL,  $\text{\LaTeX}$ , JavaScript, Scala.
- **Research:** recommender systems, machine learning, deep learning, TensorFlow, computer-aided diagnosis, pattern recognition, data mining, medical informatics, digital image processing.
- **Basic knowledge:** natural language processing, computer vision, social computing, computer networks.

## Honors and Awards

- Travel Grant, RecSys 2018
- China Scholarship Council four years scholarship, China, 2017-2021
- Outstanding graduates, Tianjin University, 2017
- First scholarship for outstanding Students, Tianjin University, 2016
- Outstanding thesis for undergraduates, Zhejiang University, 2014

## Academic Service

- Student Volunteer, RecSys'18, Vancouver, BC, Canada.
- Reviewer, IEEE Systems Journal
- Chinese subtitles translator for MOOCs, Coursera, 2016-now
- Translator & reviewer, Recommender Systems Handbook (2nd Edition, Chinese version).

## Referees

**Name** Prof. Alan Hanjalic  
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**Name** Dr. Julián Urbano  
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