

SHUGE LEI

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🌐 Shuge Lei 💻 github.com/ShugeLei; twitter@ShugeLei

EDUCATION

University of South Carolina Columbia, SC
Computer Science Doctor in Computer Science and Engineering 2019.08 - 2024.06
• Second-year Doctoral Student;
• The class participated: NLP; Machine Learning; Machine Learning System; Theory of Computation; Bayesian Statistics;
Tsinghua University Shenzhen, Guangdong, China
Hospital Management Master: in School of Public Policy and Management 2016.09 - 2019.07
• Relevant Coursework: Health Psychology, Health Statistic, Epidemiology, Health Economics, Healthcare Safety and Quality Management, Ethics of Hospital Management.
Southwestern University of Finance and Economics Chengdu, Sichuan, China
Statistics and Finance Bachelor: in Statistic School 2012.09 - 2016.07
• Honored Graduate student(10%)
• Relevant Coursework: Statistics, Advanced Mathematics, Advanced Algebra, Probability Theory;

PROJECT EXPERIENCE

Physics-Informed Deep Learning NASA
Research Assistant 2020.09 - 2020.12
• Responsible for developing a machine learning-based prediction model for melting pool dynamics.
• Embedding PDE to the machine learning model.
Symbolic Mathematics Columbia, SC
Research Assistant 2021.01 - 2021.12
• Responsible for developing sequence-to-sequence models(LSTM, RNN, and transformers) to improve the performance of the network in solving symbolic integration and differential equations.
Breast Cancer Detection Shenzhen, China
Research Assistant 2020.09 - 2021.09
• Improved the performance of breast cancer detection by optimizing FCOS model.
• Integrated multiple models into a more efficient detection system.

PROFESSIONAL EXPERIENCE

The University of Texas Health Science Center at Austin Austin, US
Visiting Student 2019.01 - 2019.03
• Participated in tobacco control program; learned about survey questionnaire;
• Promoted the dissemination of CATCH program;
Ditmanson Medical Foundation Chia-Yi Christian Hospital in Taiwan Taiwan, China
Visiting Student 2018.06 - 2018.07
• Attended an one-month class under the instruction of the front-line hospital administrators, visited 6 different hospitals, and got relatively deep and comprehensive understanding of Health Service System in Taiwan;
• Won the most effective award in the graduation project;

HONORS & AWARDS

China Government National Scholarship (1%) Nov 2013
First class academic Scholarship(2%) Mar 2013
Statistical Academy Alumni Scholarship(10%) Sep 2015
Honored Graduate Student(10%) May 2016
Honorable Mention of Mathematical Contest In Modeling(2015) May 2015

PAPER PUBLISHED

Published

- LEI Shuge, CHEN Chun-tao, KONG Ying. Analysis and discussion on hospital outpatient informatization construction--A case study of 10 public hospitals in Shenzhen [J]. Hospital Dean of China, 2018 (19): 80-81. (In Chinese)
- LEI Shuge, LEI Zhi-bin, YUAN Ke-hong. Application scenario of block chain technology in out-of-hospital medical service [J]. Chinese Hospital President, 2018 (10): 76-77. (In Chinese)
- LEI Shuge, HAN Yan, NI Shi-guang. Investigation report on parent-child reading status of migrant children in Shenzhen [J]. Society and Public Welfare, 2018 (03): 72-81. (In Chinese)

Working

- Jian Dai; Shuge Lei; Licong Dong; Xiaona Lin; Desheng Sun; Kehong Yuan. Breast ultrasound diagnosis using Multi-AI-Models;
- Jian Dai, Shuge Lei, Xuesheng Zhang, Licong Dong, Xiaona Lin, Huabin Zhang, Desheng Sun, Kehong Yuan. Improved FCOS for Detecting the Breast Cancers;

SKILLS LIST

- Skill: Python; SPSS; R; Stata; MATLAB; C/C++;
- Tools: Tensorflow; Pytorch;
- Language: Mandarin(Native); English;

MISCELLANEOUS

- **Certifications:** Certified Securities Practitioner in China; Certified Fund Practitioner in China;