

# SHUAI WANG

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## EDUCATION BACKGROUND

- Ph.D.** in *Software Engineering*, School of Software & Microelectronics, **Peking University** 06/2019-07/2021  
**M.S.** in *Data Science*, Depart. of Data Science, **Peking University** 09/2016-06/2019  
**B.S.** in *Software Engineering*, **Wuhan University** 09/2012-06/2016  
**Cumulative GPA: 3.55/4.0, Ranking: 1/53**

## PUBLICATION

- Shuai Wang** (2020). SeqMed: Recommending Medication Combination with Sequence Generative Adversarial Nets. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), IEEE
- Shuai Wang** and Junfei Liu (2020). TAGNet: Temporal Aware Graph Convolution Network for Clinical Information Extraction. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), IEEE
- Shuai Wang** and Junfei Liu (2020). ClinicNet: Clinical Practice Oriented Medical Representation Learning for Electronic Medical Records. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), IEEE
- Shuai Wang**, et al. (2019). Deep Learning Based Code Completion Models for Programming Codes. Proceedings of the 2019 3rd International Symposium on Computer Science and Intelligent Control. Amsterdam, Netherlands, Association for Computing Machinery: Article 16.
- Xiaoliang Meng, Junlong Li, **Shuai Wang**, Xiao Yang, An MLR Modeling Approach for High-resolution Remote Sensing Image, *Remote Sensing Information*, No.5, 2015
- Rong Chen, **Shuai Wang**, Study on Feature Extraction Algorithm in Spectral Data Mining, *Communication World*, No.8, 2015
- Shuai Wang, Junfei Liu and Hongzhi Liu (2021). RLCare: A Multi-task Based Reinforcement Learning Framework for Health Status Representation Learning. Paper under review.

## PATENT

- ZL 2015 2 0197924.5, **Shuai Wang**, A Sensor-based Indoor Temperature and Humidity Monitoring System (Granted in 2015)
- ZL 2015 2 0197922.6, **Shuai Wang**, Rong Chen, A PM 2.5 Monitoring System (Granted in 2015)

## RESEARCH EXPERIENCES

### 1. AI Researcher & Engineer in Huawei Noah's Ark Lab

Work Experience

08/2021-present

#### • Main work:

- 1) Pangu Large Language Model: Involved in the research and development of Pangu 3.0 Model. Mainly focus on the supervised finetune algorithms. Focus on the theories, methods and practices of the function calling ability of LLMs. Be familiar to the prompt-based data generation and the training and evaluation of LLMs.
- 2) 5G new-calling & 5G multimedia call product: Led a series of AI algorithm performance design & optimization work, including: a) The project of video content detection technology based on compression domain, b) Web-based AI video enhancement technology project. Two projects were successfully completed and was awarded as the company's 5-star technology project.
- 3) Cutting-edge technology insight: The insight direction covers LLM cutting-edge technology, video/image AIGC, field expression, NPU/GPU acceleration principle, etc., and outputs 7 insight slides and 2 company-level technical reports.

### 2. The study of health status representation learning methods and applications.

Research Project - Advisor: Dr. Junfei Liu, School of EECS, Peking University

09/2019-present

- Proposed a series of health status representation learning algorithms for clinical prediction tasks, including clinical

output prediction and medication combination recommendation.

- Create a benchmark dataset for the evaluation of clinical multi-tasks learning methods
- Wrote and published a series of related research papers about medical informatics.
- Developed an auxiliary diagnosis system software.

### 3. Code Completion with NLP algorithms

Research Project -Advisor : Dr. Zhiyi Ma , School of EECS , Peking University

09/2018-7/2019

### 4. Few-Shot Learning for images Classification

Master Reseach Project -Advisor: Dr. Weiming Hu, Institute of automation, Chinese academy of sciences 03/2018-12/2018

- Raised a novel method to combine multitask learning with graph convolutional network to rebuild the relationship among subjects divided from one image sample.
- Create a LOGO image dataset for related studies.

### 5. Algorithm Optimization for MEET Generlized Framework

Master Research Project -Advisor: Dr. Dr Zhonghai Wu, Peking University

09/2016-06/2017

- Optimized algorithm based on Recommender Systems to solve a cold-start problem.

### 6. INAV Indoor Interactive Navigation App

National Competition -Advisor: Dr. Xiaoliang Meng, Wuhan University

03/2015-08/2015

- Led the team to successfully develop an IOS mobile phone client application. Responsible for task allocation and overall follow-up. Win the First Prize in a national competition and received an angel funding promise.

## PROFESSIONAL SKILLS

- Proficiency in programming language such as C++, Python, R.
- Proficiency in deep learning framework such as Pytorch and Huggingface.
- Proficiency in IOS Swift Mobile Programming & Html Web Programming.
- Proficiency in Latex and academic writing.

## HONORS & AWARDS

- Director Award of Huawei Beijing Institute/Good performance during Huawei 2021-2023
- Special scholarship/Outstanding individual/Shenzhen Stock scholarship in Peking University 2016-2021
- “Liu Daoyu” First-class Creativity Scholarship of Wuhan University 10/2015
- National First Prize in the “China Software Cup” Software Design Competition for College Students 08/2015
- Plenty of personal honors in Wuhan University(several scholarship and outstanding individual) 2012-2016

## REPRESENTITIVE EXTRACURRICULAR ACTIVITIES

- Participated in and presented papers in BIBM 2021, held in Seoul, Korea 12/2020
- Participated in and presented my paper in FAIML 2019, held in Rome, Italy 07/2019
- Participated in GMIC 2017, held in Qingdao, China, as an assistant to Professor Tom Mitchell 11/2017
- Leader of the Learning and Studying Department of Wuhan University Association 06/2014-06/2015
- Qingdao Daily Newspaper Enterprise, *Intern Journalist* 01/2015-02/2015
- Co-author of the book entitled Postures of *After 90s* College Students 09/2013

## PREVIOUS ACQUIRED RESEARCH POSITION OFFERS

1. The offer of Postdoctoral position in Stanford University, School of Medicine in September, 2021. Due to COVID-19 in China, I am unable to catch up with the time limit of this project.
2. The offer of assistant research fellow in OXFORD Suzhou Center for Advanced Research in June, 2021. Because that it is different from my future research plan, I refuse this offer.