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

1. **Shuai Wang** (2020). SeqMed: Recommending Medication Combination with Sequence Generative Adversarial Nets. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), IEEE

2. **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

3. **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

4. **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.

5. Xiaoliang Meng, Junlong Li, **Shuai Wang**, Xiao Yang, An MLR Modeling Approach for High-resolution Remote Sensing Image, Remote Sensing Information, No.5, 2015

6. Rong Chen, **Shuai Wang**, Study on Feature Extraction Algorithm in Spectral Data Mining, Communication World, No.8, 2015

7. 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

1. ZL 2015 2 0197924.5, **Shuai Wang**, A Sensor-based Indoor Temperature and Humidity Monitoring System (Granted in 2015)

2. ZL 2015 2 0197922.6, **Shuai Wang**, Rong Chen, A PM 2.5 Monitoring System (Granted in 2015)

RESEARCH EXPERIENCES

1.   AI Research Engineer in Huawei Company

Work Experience   *08/2021-present*

- **Job Responsibilities:** pre-research and development of AI algorithm in real-time video calls, design and insight of AI-related product solutions.

- **Main work:**

  1) 5G multimedia call product of Huawei: Led a) The project of video content detection technology based on compression domain, b) Web-based AI video enhancement technology project. Two projects successfully completed the reviewand was awarded as the company's 5-star technology project.

  2) 5G new-calling product of Huawei: Led a series of AI algorithm performance optimization work.

  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.

  4) Pre-research and practice in LLM: Read the GPT/LLAMA series papers, Diffusion Model series papers; I got familiar with hugging face, LMFlow, DeepSpeed and other tools, deployed the LLAMA 7B/13B/33B/65B model, did resource statistics and effect comparison experiments, and tried fine-tuning.

- **Self-assessment:** Greatly improved my software development ability and made me clear that I want to continue my research.

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.