

SHANGMIN (SHAWN) GUO

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PUBLICATIONS

- Employing External Rich Knowledge for Machine Comprehension.
Bingning Wang, **Shangmin Guo**, Kang Liu & Jun Zhao IJCAI-2016
- Which is the Effective Way for Gaokao: Information Retrieval or Neural Networks?
Shangmin Guo, Xiangrong Zeng, Shizhu He, Kang Liu & Jun Zhao EACL-2017
- IJCNLP-2017 Task 5: Multi-choice Question Answering in Examinations
Shangmin Guo, Kang Liu, Shizhu He, Zhuoyu Wei, Cao Liu & Jun Zhao IJCNLP-2017
- Overview of CCKS-2018 Task 2: Command Understanding in Music Domain
Shangmin Guo, Kang Liu, Shengping Liu & Yong Zhang CCKS-2018

PROJECTS

Emergence of Numerals in Multi-agent Autonomous Communication System

📅 Jan. 2019 – 📍 Edinburgh, UK

- Proposed this project to explore conditions for the emergence of numerals in multi-agent communication protocols.
- Designed and implemented a specific language game.
- Implemented various agents following deep reinforcement learning framework.
- Proposed that implying linguistic assumption can be formalised with mechanism design techniques in game theory.

Automatic Medical Record Generation based on Doctor-Patient Dialogue

📅 Mar. 2018 – Aug. 2018 📍 Beijing, China

- Designed the schema of a new medical knowledge base and implemented an information gain algorithm to do diagnosis on it.
- Led the development of a disease tag prediction system based on the utterances of doctor-patient dialog.

Intent Detection and Slot Filling of Utterances in Music Dialogue System

📅 Jun. 2017 – Mar. 2018 📍 Beijing, China

- Proposed a NER model that can incorporate music domain knowledge to identify named entities and corresponding intentions.
- Led the development of a command understanding system in music domain.

Question Answering System for Gaokao History Multiple Choice Questions

📅 Oct. 2015 – Oct. 2017 📍 Beijing, China

- Designed and developed a novel deep neural network model that is combined with IR method, which gained best performance on real Gaokao questions in subject History.
- Implemented various kinds of baseline models including memory networks and dynamic memory networks.
- This work has been published on EACL-2017.

WORKING EXPERIENCE

Research Engineer

National Laboratory of Pattern Recognition

📅 Oct 2015 – Aug 2018 📍 Beijing, China

Department Administrative Officer (Part-time)

Department of Computer Science, College of Computer Science and Technology

📅 Feb 2011 – Jan 2012 📍 Changsha, China

EDUCATION

M.Sc. Candidate in Data Science

Avg Score: 75.42 (A3)

The University of Edinburgh

📅 Sept 2018 – 📍 Edinburgh, UK

B.E. in Computer Science

Rank: 1st / 66 | GPA: 3.88 / 4.0 | Avg Score: 87.20 / 100

National University of Defense Technology

📅 Sept 2010 – June 2014 📍 Changsha, China

RESEARCH INTERESTS

Evolutionary Linguistics

Grounded Language Learning

Natural Language Understanding

PROGRAMMING&TOOLS

Python/PyTorch/L^AT_EX

Java/C++/Django

Distributed Computing/R



HIGHLIGHT COURSES

Probabilistic Modeling and Reasoning

Computational Cognitive Science

Reinforcement Learning

Algorithmic Game Theory

LIFE PHILOSOPHY

"Truth can be known but it may not be the well-known truth."

Employing External Rich Knowledge for Machine Comprehension

📅 Oct. 2015 – Feb. 2016

📍 Beijing, China

- Developed a RTE model that is trained on rich external corpus and then be applied to evaluate the confidence of a specific answer candidate in machine comprehension.
 - This work has been published on IJCAI-2016.
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Research and Analysis of Behavior Modeling in Simulation System

📅 Oct. 2013 – June 2014

📍 Changsha, China

- This is my diploma project, the overall objective is to build a distributed interactive simulation system. I took the responsibility of research and analysis of the behavior modeling.
 - Concluded the methods of behavior modeling and abstracted them with first-order sequential logic.
 - Built up several behavior models in different scenarios and checked feasibility of these models.
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Kernel Transplanting and System Image Customization of UbuntuKylin OS in Mobile Terminal

📅 May 2011 – May 2012

📍 Changsha, China

- Transplanted and optimized Linux kernel to be adaptive on tablet PCs, specifically the power management module and basic drivers.
- UbuntuKylin is now the official Chinese version of Ubuntu.

REFEREES

Prof. Stuart Anderson

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👤 Schools of Informatics, The University of Edinburgh

Prof. Jun Zhao

@ jzhao@nlpr.ia.ac.cn

👤 Chinese Information Processing Group, Institute of Automation, Chinese Academy of Sciences

Associate Prof. Kang Liu

@ kliu@nlpr.ia.ac.cn

👤 Research Group of Speech&Language Technology, Institute of Automation, Chinese Academy of Sciences

HOBBIES

Paintball

Archery

Racing Car

