

Shuao Guo

✉ sheoguo@gmail.com | <https://sheoguo.github.io/> | <https://github.com/sheoguo>

Education

Institute of Scientific and Technical Information of China(ISTIC) Beijing,China Sep. 2021- Jan. 2024
Master of Management in Competitive Intelligence | [Link to all courses](#) **GPA: 88.02/100**
Relevant Courses: Text Analysis Processing and Applications, Knowledge Graph, Semantic Web Technology and Applications

Henan University of Technology(HAUT) Zhengzhou,Henan Province,China Sep. 2017- Jun. 2021
Bachelor of Engineering in Automation | [Link to all courses](#) **GPA: 2.65/5**
Relevant Courses: Automatic Control Theory, Intelligent Control, Computer Control Technology, Embedded System, Circuits Theory

Research Experience

Master Thesis: Machine Translation for Titles of Scientific Papers with Contextual Information Jun. 2022 - Oct. 2023

- Constructed a Russian-to-Chinese neural machine translation system based on Transformer for titles of Russian scientific papers.
- Developed the pivot-based word embedding generation method to improve the performance of Ru-to-Ch machine translation.
- Introduced the abstracts of the papers as context information into titles' machine translation system to improve its performance.
- Tools:** Python; Fairseq; Pytorch

ISTIC 2021 Key Project: Crosslingual Knowledge Discovery based on Full-text Scientific Literature Oct. 2021 - Jul. 2022

- Cleaned,extracted and indexed data of multilingual scientific patents and papers; performed Named Entity Recognition on data.
- Mined and identified associated knowledge structure; constructed a multi-dimension and multi-label analysis framework.
- Tools:** Python; Pandas; Matplotlib; Numpy

ISTIC 2023 Key Project: Construction of Intelligent intelligence Integration Innovation System Jul. 2023 - May 2024

- Developed an automatic extraction system based on LLM for extracting entities and entity relationships about research design(such as research task,method,metrics,material) from abstracts of papers in the AI field.
- Tools:** Python; Brat; Bloom

Selected Competitions and Projects

CCMT 2022: Thailand-to-Chinese Low-Resource Machine Translation Evaluation Task(ranked 1st) Apr.2022 - Jul.2022

- Constructed a Thai-to-Ch NMT system with only a few parallel corpus by specific data preprocessing steps and training tricks.

EvaHan 2023: Ancient Chinese Machine Translation Evaluation Task(ranked 3rd) May.2023 - Jul.2023

- Constructed an Ancient-to-Modern Chinese NMT system and an Ancient Chinese-to-English NMT system separately.

Bairong Inc.2023 Xuanji Financial Quantitative Algorithm Competition Dec.2023 - Dec.2023

- Constructed a credit scoring model for bank users based on the provided data using the LightGBM (LGB) model.

CCL 2023: Telecom Network Fraud Case Classification Evaluation Task Jun.2023 - Jun.2023

- Constructed a fraud classification model based on Text-RCNN for chat content in telecom fraud calls.

CCMT2023: Chinese-Centric Multilingual Machine Translation Evaluation Task May.2023 - Jul.2023

- Constructed a multilingual neural machine translation system between Chinese and five languages of Southeast Asian countries.

Horizontal Project: Multilingual Automatic Translation of Scientific Documents Sep.2022 - Jan.2023

- Preprocessed scientific documents and conducted large-scale translations using existing machine translation systems..

Horizontal Project: Data Selection and Preprocessing in the Industrial Internet Field. May.2023 - Jun.2023

- Built an interface for querying similar data in industrial corpora based on bert vector similarity calculation.

Bachelor Thesis: Design of Control System of Flexible Joint Manipulator based on Observer Jun.2020 - May.2021

- Simulated a sliding mode variable structure control system for a flexible joint manipulator based on an observer using Simulink.

Publications

- (1) **Shuao Guo**,at.el.**ISTIC's Thai-to-Chinese Neural Machine Translation System for CCMT' 2022**.Machine Translation. CCMT 2022. Communications in Computer and Information Science, vol 1671. Springer, Singapore.
- (2) **Shuao Guo**,at.el.**ISTIC's Neural Machine Translation Systems for CCMT' 2023**.Machine Translation. CCMT 2023. Communications in Computer and Information Science, vol 1922. Springer, Singapore.
- (3) Ningyuan Deng,**Shuao Guo**,at.el.**Istic Neural Machine Translation System for EvaHan 2023**.In Proceedings of ALT2023: Ancient Language Translation Workshop, pages 34–42, Macau SAR, China. Asia-Pacific Association for Machine Translation.

Skills

Programming Languages: Python, C/C++, SQL, HTML, Bash, Matlab, CSS,Java