

# Sinong Wang



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**GitHub:** <https://github.com/TheronWang>  
**Research Direction:** NLP, Animal Language Processing

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## EDUCATION

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| <b>2023.8-present</b> | <b>Ph.D.</b> , Computer Science,<br><b>The University of Texas at Arlington (UTA)</b> , Texas, USA<br>Overall GPA: <b>4.0/4.0</b><br>Supervisor: Dr. Zhu, Kenny   |
| <b>2020.9-2023.7</b>  | <b>M.S.</b> , Software Engineering,<br><b>Northeastern University (NEU)</b> , Shenyang, China<br>Supervisor: Wei Zhang<br>Overall GPA: <b>3.63/5.0 (Ranking 6/132)</b><br><b>Main courses:</b> Applied mathematical statistics, Advanced Artificial Intelligence, Advanced Software Engineering |
| <b>2021.1-2022.7</b>  | <b>M.S.</b> , Computer Science,<br><b>The University of Texas at Arlington (UTA)</b> , Texas, USA<br>Overall GPA: <b>4.0/4.0</b><br><b>Main courses:</b> DBMS Models and Implementation, Data Mining, Agile Development, Advanced DBMS  |

## PUBLICATIONS

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Li, Xingyuan, Sinong Wang, Zeyu Xie, Mengyue Wu, and Kenny Q. Zhu. "Phonetic and Lexical Discovery of a Canine Language using HuBERT." arXiv preprint arXiv:2402.15985 (2024).

Sinong Wang, Xingyuan Li, Hridayesh Lekhak, Mengyue Wu, Kenny Q. Zhu. "A Canine Language Lexical Analysis System" (submitted 03/2024)

## RESEARCH EXPERIENCE

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- ♣ **2021.04-2023.06** *Supervisor: Wei Zhang*
- DeepLearning-based Super Resolution Algorithm via Feature Adaptive Restore**
- **Research Purpose:** Solve the single image super-resolution algorithm based on deep learning from the following two aspects:

- Adopt **Transformer Encoder** to abstract global features and apply it to whole image patches.
- Add new constraint to shrink hypothesis space to find a more reasonable convergence position.
- **Research Achievements:**
  - a. **Designed a new model** which the performance on test set is in the first echelon, and the details of the model need to be optimized.
  - b. **Coded a deep learning training and testing system** based on PyTorch.
  - c. Summarized the two main directions to solve super resolution problem.

#### ♠ 2021.10-2023.5

*Supervisor: Wei Zhang*

##### Deep Learning based Adaptive Colour Channel Real-world Image Denoising

- **Research Purpose:**
  - Use the imaging principle and **basic features of digital image**, more information is extracted through deep learning model to help image restoration.
- **Research Achievements:**
  - a. Designed a new model by **combining traditional image processing algorithm and deep learning model**.
  - b. Made a **new real-world data set** which contain real-world ground truth through control the different ISO and combine noisy images.

#### ♠ 2021.08-2021.10

*Supervisor: Khalili, Barham*

##### Agile Development Project: Personal Health Monitoring System (PHMS)

- **Research Purpose:**
  - Simulated Agile development of a complete system using Scrum methodBuild a personal health monitoring system
- **Research Achievements:**
  - a. Built a complete system through MySQL, Redis, Flask, html, Javascript.
  - b. Improved the ability of cooperation and communication.
  - c. **Won the first place in all the projects.**

## ***RELATED EXPERIENCE***

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**University of Texas at Arlington**

2023.8-present

- Graduate Teaching Assistant – CSE4392 NLP, CSE 3302/5307 PLC

**Red Packet Delivery Project, ByteDance Back-end Boot Camp**

2021.10-2021.12

- Use go language to complete **highly concurrent back-end** code, including token bucket, message queue, etc.

**PingAnHaoXue, Online education for teenagers**

2020.06-2021.03

- Python teacher(part-time)

## ***SKILLS & CERTIFICATION & INTERESTS***

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- **Skills:** Python, PyTorch, OpenCV, Flask, Javascript, SQL, Bootstrap, REST API, UNIX/Linux, jinja, CSS/SCSS, git, HTML, C/C++, Machine Learning, Data Mining
- **Certifications:** Deep Learning Specialization – Coursera
- **Interests:** Machine Learning, Web Development, Drama, Video Game