JUNJIE WU

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EDUCATION

- **Hong Kong University of Science and Technology** *September 2020 - Present*
  Ph.D. in Artificial Intelligence Advised by **Prof. Dit-Yan Yeung**

- **Sun Yat-sen University, Guangzhou, China** *September 2016 - June 2020*
  Bachelor in Statistics, School of Mathematics, Major GPA: 3.8/4.0
  (Second-class, Third-class Scholarship of Sun Yat-sen University, 2016-2017, 2017-2018)

EXPERIENCES

- **GenAI, Meta** *June 2025 - Present*
  Research Scientist Intern Advised by **Kaitai Zhang**
  Overview: *Investigating the application of LLMs in advertisement generation.*
- **Yale NLP Lab, Yale University** *Sept 2024 - Feb 2025*
  Visiting Ph.D. Student Advised by **Prof. Arman Cohan**
  Overview: *Investigating the long context understanding capability of large language models.*
- **Pattern Recognition Center, WeChat AI, Tencent** *May 2024 - May 2025*
  Research Intern Advised by **Mo Yu, Lemao Liu**
  Overview: *Investigating the reasoning capabilities, intelligence, and AGI level of large language models. Training improved embedding models for information retrieval and retrieval-augmented generation (RAG).*
- **Tencent AI Lab** *July 2021 - Jan 2024*
  Research Intern Advised by **Lemao Liu, Wei Bi**
  Overview: *Investigating the robustness of machine translation systems.*
- **CoAI Lab, Tsinghua University** *Oct 2019 - Aug 2020*
  Research Intern Advised by **Prof. Minlie Huang**
  Overview: *Tracking and controlling topic transition in document-grounded dialog system.*
- **Blablablab, University of Michigan** *July 2019 - June 2020*
  Research Intern Advised by **Prof. David Jurgens**
  Overview: *Predicting prosocial (defined by many metrics like healthy, supportive, politeness) outcomes in online conversations from a large-scale Reddit dataset.*
- **NGN Lab, Tsinghua University** *July 2018 - Aug 2018, Jan 2019 - May 2019*
  Research Intern Advised by **Prof. Yongfeng Huang**
  Overview: *English and Chinese text emotion analysis and classification.*

PREPRINTS (*: EQUAL CONTRIBUTION.)

1. Situated Embedding Models for Context-Aware Dense Retrieval
   ***Junjie Wu**, Mo Yu, Lemao Liu, Liyan Xu, Jiangnan Li, Jiwei Li, Dit-Yan Yeung, Jie Zhou*
   - Introduce the first situated embedding model designed to incorporate a chunks contextual information directly into its embedding, enabling a deeper understanding of the chunk itself.
2. SCAT: Robust Self-supervised Contrastive Learning via Adversarial Training for Text Classification
   ***Junjie Wu**, Dit-Yan Yeung*
   - Propose a novel contrastive learning-based approach to enhance the robustness of NLP classification models against various textual adversarial attacks.

ACCEPTED PAPERS (*: EQUAL CONTRIBUTION.)

1. Ref-Long: Benchmarking the Long-context Referencing Capability of Long-context Language Models (**ACL 2025**)
   Junjie Wu, *Gefei Gu*, Yanan Zheng, Dit-Yan Yeung, Arman Cohan*

- Introduce Ref-Long, a long-context benchmark that systematically evaluates the long-context referencing capability of LCLMs, which leads to several findings through experimenting on it.

2. Understanding LLMs Fluid Intelligence Deficiency: An Analysis of the ARC Task (**NAACL 2025 Oral**)
   ***Junjie Wu**, Mo Yu, Lemao Liu, Dit-Yan Yeung, Jie Zhou*
   - Systematically investigate the challenges LLMs face on inductive reasoning tasks through a series of experiments, and conclude many findings that could facilitate future works.
3. The Stochastic Parrot on LLM's Shoulder: A Summative Assessment of Physical Concept Understanding (**NAACL 2025 Oral**)
   Mo Yu, Lemao Liu*, **Junjie Wu***, Tsz Ting Chung*, Shunchi Zhang*, Jiangnan Li, Dit-Yan Yeung, Jie Zhou*
   - Introduce a novel physical concept understanding task called PhysiCo, revealing that the SOTA LLMs exhibit a significant gap compared to humans, showing evidence of the Stochastic Parrot phenomenon in these LLMs.
4. Unified Triplet-Level Hallucination Evaluation for Large Vision-Language Models (**TMLR, Accept with minor revision**)
   Junjie Wu, Tsz Ting Chung*, Kai Chen*, Dit-Yan Yeung*
   - Introduce a new framework to evaluate LVLMs' hallucination on triplet-level, with a benchmark dataset for evaluation and a mitigation method based on the paper's findings.
5. Rethinking Targeted Adversarial Attacks for Neural Machine Translation (**ICASSP 2024**)
   ***Junjie Wu**, Lemao Liu, Wei Bi, Dit-Yan Yeung*
   - Point out a serious issue in current NMT targeted adversarial attacks, then propose a new attack setting to remedy this issue and a novel targeted adversarial attack method that outperforms previous methods.
6. Towards General Error Diagnosis via Behavioral Testing in Machine Translation (**EMNLP 2023**)
   ***Junjie Wu**, Lemao Liu, Dit-Yan Yeung*
   - Design a novel bilingual translation pair generation based behavioral testing approach for machine translation systems, which could provide comprehensive and faithful behavioral testing results for general error diagnosis.

   (Presented at the GenBench workshop at EMNLP 2023.)
7. Conversations Gone Alright: Quantifying and Predicting Prosocial Outcomes in Online Conversations (**WWW 2021**)
   Jiajun Bao, **Junjie Wu***, Yiming Zhang*, Eshwar Chandrasekharan, David Jurgens*
   - Identify factors that are related to the prosocial outcomes in online conversations, then design a model to predict whether a conversation will lead to prosocial outcomes or not.
8. Augmenting Topic-Aware Knowledge-Grounded Conversations with Dynamic Built Knowledge Graphs (**DeeLIO at NAACL 2021**)
   ***Junjie Wu**, Hao Zhou*
   - Propose a method to dynamically build knowledge graphs from the conversation history, which helps to enhance the quality of the generated dialogs.

ACADEMIC SERVICES

Programme Committee: ACL (2023)
Reviewer: NeurIPS (2024, 2025), ICLR (2025), ICML (2025), ACL Rolling Review (ARR)

TECHNICAL SKILLS AND OTHERS

Programming: Python, Pytorch, Matlab, R, Latex
TOEFL: 105 **GRE**: V155 Q170 AW4.0
Miscs: I like playing basketball, and I am the team member of the school basketball team from 2016-now.