Danqing Wang

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Research Interest: Natural Language Processing, AI Drug Discovery, Text Summarization
Project: `https://github.com/dqwang122`

Education & Experience

- **Algorithm Researcher** — **AI-Lab, ByteDance**
  Advisor: Hao Zhou and Lei Li — *2021 – Current*
- **Master in Computer Science** — **Fudan Univerisity**
  Advisor: Prof. Xipeng Qiu and Prof. Xuanjing Huang — *2018 – 2021*
  GPA: 3.72/4.0 Ranking: 15/225
- **Bachelor in Computer Science and Technology** — **Fudan Univerisity**
  GPA: 3.62/4.0 Ranking: 10/74 — *2014 – 2018*

Publication

- **Generating Antimicrobial Peptides from Latent Secondary Structure Space**
  Danqing Wang, *Zeyu Wen, Hao Zhou, Lei Li* — ***Under Review***
  - Samples peptides from the latent secondary structure space to control the peptide properties.
  - Results show that the generated peptides have better characteristics (+6.27%) and high AMP probability (91.47%).
- **Contrastive Aligned Joint Learning for Multilingual Summarization**
  Danqing Wang, *Jiaze Chen, Hao Zhou, Xipeng Qiu, Lei Li* — ***ACL 2021 Findings***
  - Main leader of this long paper [link]
  - A large-scale multilingual summarization corpus MLGSum with 1.1 million articles and summaries in 12 languages.
  - Two tasks, contrastive sentence ranking and sentence aligned substitution, for multilingual summarization.
- **Heterogeneous Graph Neural Networks for Extractive Document Summarization**
  Danqing Wang*, *Pengfei Liu**, *Yining Zheng, Xipeng Qiu and Xuanjing Huang* — ***ACL 2020***
  - Main leader of this long paper [link]
  - Introduce word nodes to model the cross-sentence relationship for extractive summarization.
  - Easily adapt the graph model from single to multiple document summarization.
- **Extractive Summarization as Text Matching**
  *Ming Zhong**, *Pengfei Liu**, *Yiran Chen*, ***Danqing Wang***, *Xipeng Qiu and Xuanjing Huang* — ***ACL 2020***
  - Collaborator of this long paper [link]
  - Formulate extractive summarization as a semantic text matching problem and select sentences in summary-level.
  - Achieve superior performance on six benchmark datasets, including state-of-the-art extractive result on CNN/DailyMail.
- **Searching for Effective Neural Extractive Summarization: What Works and What's Next**
  *Ming Zhong**, *Pengfei Liu**, ***Danqing Wang***, *Xipeng Qiu, Xuanjing Huang* — ***ACL 2019***
  - Significant collaborator of this long paper, oral presentation [link]
  - Models with autoregressive decoder are prone to achieving better performance against non auto-regressive ones.
  - LSTM is more likely to suffer from the architecture overfitting problem while Transformer is more robust.

Skills

- **Language:** Python > C++ > C
- **Framework:** Pytorch > Tensorflow