- Edward J Hu, Yelong Shen, Phillip Wallis, Zeyuan Allen-Zhu, Yuanzhi Li, Shean Wang, Lu Wang, and Weizhu Chen. Lora: Low-rank adaptation of large language models. *arXiv* preprint arXiv:2106.09685, 2021.
- Huiqiang Jiang, Qianhui Wu, Chin-Yew Lin, Yuqing Yang, and Lili Qiu. Llmlingua: Compressing prompts for accelerated inference of large language models. *arXiv preprint arXiv:2310.05736*, 2023a.
- Zhiying Jiang, Matthew Yang, Mikhail Tsirlin, Raphael Tang, Yiqin Dai, and Jimmy Lin. "low-resource" text classification: A parameter-free classification method with compressors. In *Findings of the Association for Computational Linguistics: ACL 2023*, pp. 6810–6828, 2023b.
- Mark A. Kramer. Nonlinear principal component analysis using autoassociative neural networks. *Aiche Journal*, 37:233–243, 1991.
- Patrick Lewis, Ethan Perez, Aleksandra Piktus, Fabio Petroni, Vladimir Karpukhin, Naman Goyal, Heinrich Küttler, Mike Lewis, Wen-tau Yih, Tim Rocktäschel, et al. Retrieval-augmented generation for knowledge-intensive nlp tasks. *Advances in Neural Information Processing Systems*, 33: 9459–9474, 2020.
- Nelson F. Liu, Kevin Lin, John Hewitt, Ashwin Paranjape, Michele Bevilacqua, Fabio Petroni, and Percy Liang. Lost in the middle: How language models use long contexts, 2023.
- Eleanor A Maguire, Elizabeth R Valentine, John M Wilding, and Narinder Kapur. Routes to remembering: the brains behind superior memory. *Nature neuroscience*, 6(1):90–95, 2003.
- Jesse Mu, Xiang Lisa Li, and Noah Goodman. Learning to compress prompts with gist tokens. arXiv preprint arXiv:2304.08467, 2023.
- OpenAI. Gpt-4 technical report. ArXiv, abs/2303.08774, 2023.
- Long Ouyang, Jeffrey Wu, Xu Jiang, Diogo Almeida, Carroll Wainwright, Pamela Mishkin, Chong Zhang, Sandhini Agarwal, Katarina Slama, Alex Ray, et al. Training language models to follow instructions with human feedback. *Advances in Neural Information Processing Systems*, 35: 27730–27744, 2022.
- Kishore Papineni, Salim Roukos, Todd Ward, and Wei Jing Zhu. Bleu: a method for automatic evaluation of machine translation. 10 2002. doi: 10.3115/1073083.1073135.
- Guangyue Peng, Tao Ge, Si-Qing Chen, Furu Wei, and Houfeng Wang. Semiparametric language models are scalable continual learners. *arXiv preprint arXiv:2303.01421*, 2023.
- Guanghui Qin and Benjamin Van Durme. Nugget: Neural agglomerative embeddings of text. In Andreas Krause, Emma Brunskill, Kyunghyun Cho, Barbara Engelhardt, Sivan Sabato, and Jonathan Scarlett (eds.), *Proceedings of the 40th International Conference on Machine Learning*, volume 202 of *Proceedings of Machine Learning Research*, pp. 28337–28350. PMLR, 23–29 Jul 2023. URL https://proceedings.mlr.press/v202/qin23a.html.
- Jack W Rae, Anna Potapenko, Siddhant M Jayakumar, and Timothy P Lillicrap. Compressive transformers for long-range sequence modelling. *arXiv* preprint arXiv:1911.05507, 2019.
- Charlie Snell, Dan Klein, and Ruiqi Zhong. Learning by distilling context. arXiv preprint arXiv:2209.15189, 2022.
- Woomin Song, Seunghyuk Oh, Sangwoo Mo, Jaehyung Kim, Sukmin Yun, Jung-Woo Ha, and Jinwoo Shin. Hierarchical context merging: Better long context understanding for pre-trained llms. In *The Twelfth International Conference on Learning Representations*, 2024.
- Hugo Touvron, Thibaut Lavril, Gautier Izacard, Xavier Martinet, Marie-Anne Lachaux, Timothée Lacroix, Baptiste Rozière, Naman Goyal, Eric Hambro, Faisal Azhar, Aur'elien Rodriguez, Armand Joulin, Edouard Grave, and Guillaume Lample. Llama: Open and efficient foundation language models. *ArXiv*, abs/2302.13971, 2023a.