Lin Zheng

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Education

Sun Yat-sen (Zhongshan) University — **Guangzhou, China**
Bachelor of Engineering (Software Engineering) — *2017.09 – present*
School of Data and Computer Science

- Overall GPA 4.0/4.0, Ranking 4/174
- **Highlighted courses**: Matrix Analysis(99/100, ranking 1/17), Principles of Artificial Intelligence(96/100, ranking 1/123), Probability and Statistics(100/100, ranking 1/80)

Research Interests

My research interests include machine learning and natural language processing, in particular latent variable models, structured prediction and their applications on natural language.

Publications

[1] **Lin Zheng**, Qinliang Su, Dinghan Shen, and Changyou Chen. Generative semantic hashing enhanced via boltzmann machines. In *Association for Computational Linguistics 2020 Conference (ACL 2020)*.

[2] **Lin Zheng**, Zhiyong Wu, and Lingpeng Kong. Cascaded head-colliding attention. In *Association for Computational Linguistics 2021 Conference (ACL 2021)*.

Research Experiences

Research Assistant — **Advisor: Qinliang Su**
Sun Yat-sen (Zhongshan) University — *2019.03 – present*

- Our project mainly focused on generative semantic hashing tasks, which employ a generative model (VAE) to produce binary hash codes for documents. We proposed to enforce correlations among different bits of a hash code via Boltzmann machines such that our model can make better use of coding space and yield more effective hash codes. Our work is accepted in **ACL 2020**.
- We also worked on constructing lower-variance unbiased gradient estimators for discrete latent variable models.

Research Assistant — **Advisor: Lingpeng Kong**
The University of Hong Kong — *2020.11 – present*

- We present **c**ascaded head-col**li**d**i**ng **a**ttention (CODA), a new attention mechanism that takes into account the interactions among different attention heads. This work is accepted in **ACL 2021**.
- We are currently working on efficient attention for images.

Selected Awards

2019.09: The first-grade scholarship at Sun Yat-sen University.

2018.09: The second-grade scholarship at Sun Yat-sen University.

Skills

Programming Language: Python (including packages Pytorch, Tensorflow), C/C++, Java

Language: Chinese (native), English (fluent)