Peng KANG

1410 Chicago Avenue, Apt-611, Evanston, USA

Education

EECS, Northwestern University, CS PhD student 09/2018 - Present

- GPA: **4.0/4.0**

School of Computer Science, McGill University 09/2016 - 07/2018

- Master of Science, Computer Science
- GPA: **4.0/4.0**

School of Data and Computer Science (SDCS), Sun Yat-sen University (SYSU) 09/2012 - 07/2016

- Bachelor of Engineering in Software Engineering
- GPA: **3.9/4.0**, Ranking: **4/256**

Publications

- Xiao-Wen Chang, **Peng Kang**, and David Titley-Peloquin, "**Error bounds for computed least squares estimators**." Linear Algebra and its Applications (2019) (H-index: 82; IF = 1.094; Mathematical Journal) (**First author is my supervisor**)

- Chen Ma, **Peng Kang**, and Xue Liu, "**Hierarchical Gating Networks for Sequential Recommendation**", in the 25th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD 2019** Research Track, acceptance rate: ~170/~1200=14%), Anchorage, USA, Aug. 2019.

- Chen Ma, **Peng Kang**, Bin Wu, Qinglong Wang, and Xue Liu, "**Gated Attentive-Autoencoder for Content-Aware Recommendation**", in the 12th ACM International Conference on Web Search and Data Mining (**WSDM 2019**, acceptance rate: 16%), Melbourne, Australia, Feb. 2019.

- Zitong Wang, **Peng Kang**, Zewei Wu, Yanghui Rao, and Fu Lee Wang. "**A Density-Based Clustering Algorithm with Educational Applications.**" In International Conference on Web-Based Learning, pp. 118-127. Springer, Cham, 2015.

- **Peng Kang**, Qi Zhou, Wei-Qiang Chen, and Mei-Rong Pan. "**Pocket Printer-A Novel Idea and Implement About Printer.**" In 13th National Conference on Embedded System Technology, pp. 118-129. Springer, Singapore, 2015.

Research Experience

Recommendation Systems @CPS Lab, McGill 04/2017-07/2018

- Proposed two content-aware multi-modal variational autoencoders: CMVAE-J and CMVAE-C. CMVAE-J learns a joint latent representation of an item simultaneously from its rating and content modalities. Utilized a shared layer and a cross-modality training setting in CMVAE-C, which makes CMVAE-C can reconstruct one modality given only the other modality.
- Proposed a GCN-based (Graph Convolutional Networks) recommendation model, which adopts GCN to extract user and item latent features for conducting effective recommendation.

Error Estimates in Linear Models @Scientific Computing Lab, McGill 04/2017-07/2018

- Given a linear regression model: $y = X\beta + v$, where v is a noise vector following normal distribution, a user may be interested in the error between the computed LS solution and the parameter vector β in the above equation and would like to know which method should be used for his/her LS regression problem.
- Derived the error bounds for the QR method and the Normal Equation method, compared these two bounds and we gave some practical guidance on which method should be used in different scenarios.

Computer Skills

- Computer languages: Python, Matlab, Java, C, C++ (rank by familiarity)