Bowei Chen

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EDUCATION

Carnegie Mellon University, Robotics — Pittsburgh, USA
Master of Science in Robotics — 08/2020-06/2022

Northeastern University (NEU), Software Engineering — Shenyang, China
Bachelor of Engineering — 09/2016-07/2020

- GPA: 4.2/5.0; Ranking: 1

University of Wisconsin-Madison, Computer Science — Madison, USA
Visiting Student — 01/2019-05/2019

- GPA: 3.75/ 4.0
- Courses: *Intro-Progm Langs&Compliers, Intro-Combinatorics, Programming Ⅲ, Linear Algebra Ⅱ*

RESEARCH EXPERIENCE

Université Laval — Québec City, Canada
Research Assistant, Supervisor: Jean-François Lalonde — 06/2019-09/2019

- Conducted the project *Deep Learning and Lighting Understanding for Panorama*;
- Conducted a literature review on lighting understanding; proposed a deep learning algorithm to learn High Dynamic Range (HDR) Panorama from Indoor Low Dynamic Range (LDR) video;
- Implemented the algorithm in Pytorch and conducted experiments;

Northeastern University — Shenyang, China
Research Assistant, Supervisor: Guibing Guo — 10/2017-01/2020

- Developed recommendation algorithms based on deep learning;
- Built several deep learning recommendation models, including hierarchical attentive sequential networks and models based on GAN; implemented these algorithms in Tensorflow and Theano, which performed well on many real-world datasets in terms of ranking accuracy;
- Managed three undergraduate research assistants; assisted in several graduate projects;
- Co-authored five papers (three were published and two are under review); the algorithms were applied to some high-tech companies and received high praise.

WORKING EXPERIENCE

Tencent — Shenzhen, China
Research Assistant Intern, Supervisor: Fajie Yuan — 10/2019-01/2020

- Launched the project *Transfer Representation Learning and Parallel Sequence Generation.*
- Designed an unsupervised representation learning algorithm to learn user pattern from a sequence of interacted items (in Tencent Video), and transferred it to another scene (Wesee) to predict user behavior;
- Proposed a parallel sequence generator to produce the outputs of autoregressive models in parallel; this helped increase generation speed at a small loss in performance relative to traditional autoregressive models.
- Implemented the algorithms in Tensorflow and conducted experiments.

PUBLICATION

G. Guo, **B. Chen**, X. Zhang, Z. Liu, Z. Dong, X. He. Leveraging Title-Abstract Attentive Semantics for Paper Recommendation. The Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020).

R. Ding, G. Guo, **B. Chen,** X. Yang. BiGAN: Collaborative Filtering with Bidirectional Generative Adversarial Networks. The SIAM International Conference on Data Mining (SDM 2020).

H. Luo, X. Zhang, **B. Chen**, G. Guo. Multi-view Visual Bayesian Personalized Ranking from Implicit Feedback. Proceedings of the ACM Conference on User Modeling, Adaptation, and Personalization (UMAP 2018).

R. Ding, **B. Chen**, G. Guo, X. Yang. path2vec: Adversarial Path Sampling for Recommender Systems. (Under Review) IEEE Intelligent Systems.

G. Guo, H. Zhou, **B. Chen (Corresponding Author)**, Z. Liu, X. Xu, X. Chen, Z. Dong. IPGAN: Generating Informative Item Pairs by Adversarial Sampling. (Under Review) IEEE Transactions on Neural Networks and Learning Systems (TNNLS).

EXTRACURRICULAR ACTIVITY

Shenyang Licheng Community Shenyang, China
Volunteer 2017/9-2018/1

- Taught middle school students computer courses.

Social Practice to Explore the Culture of Internet Companies Shenzhen, China
Team leader 2018/7

- Led a 7-person team to visit Tencent and discussed the prospect of AI and deep learning with senior scientists.

HONORS & AWARDS

- The Second Prize in China Undergraduate Mathematical Contest in Modeling 2018
- Excellent Student of Northeastern University 2017, 2019
- Excellent Individuals of Social Practice Activities of Northeastern University 2018
- Outstanding Volunteer in Licheng Community 2018
- National Scholarship 2017
- Outstanding Graduates of Northeastern University 2019

SKILLS & INTERESTS

- Language Skills: Chinese (Native), English (Fluent), Cantonese (Conversational)
- Computer Skills: Java, Python, C++, C, Pytorch, Tensorflow, JavaScript
- Interest: Basketball, Singing, Popular Music