

# Zhaocheng Zhu

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## EDUCATION

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**Mila - Québec AI Institute / Université de Montréal**, Montréal, Canada *Sep. 2018 - Present*

Ph.D. student in Computer Science

- Graph Representation learning, Machine Learning Systems, Knowledge Graphs
- Advisor: Jian Tang

**Peking University**, Beijing, China

*Sep. 2014 - July 2018*

B.S. in Computer Science (with honors)

- Natural Language Processing, Unsupervised Representation Learning, Word Semantics
- Advisor: Junfeng Hu
- Computer Vision, Object Detection
- Thesis Advisor: Yizhou Wang, Jifeng Dai (Microsoft Research Asia)

## SELECTED PUBLICATIONS

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**GraphVite: A High-Performance CPU-GPU Hybrid System for Node Embedding**

**Zhaocheng Zhu**, Shizhen Xu, Meng Qu and Jian Tang. In *The World Wide Web Conference*, pp. 2494-2504, 2019. <https://graphvite.io>. <https://github.com/DeepGraphLearning/graphvite>.

## INTERNSHIP

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**Microsoft Research Asia**, Beijing, China

*Sep. 2018 - May 2019*

- Video object detection with optical flow and temporal context
  - Reproduction of Mask R-CNN for keypoint detection
  - Towards accurate localization in object detection
- Mentor: Jifeng Dai

**Carnegie Mellon University**, Pittsburgh, United States

*July 2017 - Sep. 2017*

- Stacked local linear explanations for deep neural networks
- Advisor: Pradeep Ravikumar

**Mitsubishi Information Technology R&D Center**, Kamakura, Japan

*July 2016 - Aug. 2016*

- Dialog State Tracking Challenge 5
  - Multi-label classifier for Chinese intention understanding
- Mentor: Yusuke Koji

## PUBLICATIONS

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**Self-Adaptive Network Pruning**

Jinting Chen, **Zhaocheng Zhu**, Cheng Li, Yuming Zhao In *International Conference on Neural Information Processing*, 2019. (Oral)

**GraphVite: A High-Performance CPU-GPU Hybrid System for Node Embedding**

**Zhaocheng Zhu**, Shizhen Xu, Meng Qu and Jian Tang. In *The World Wide Web Conference*, pp. 2494-2504, 2019.

**Saliency Supervision: An Intuitive and Effective Approach for Pain Intensity Regression**

Conghui Li, **Zhaocheng Zhu** and Yuming Zhao. In *International Conference on Neural Information Processing*, pp. 455-464, 2018.

## Context Aware Document Embedding

Zhaocheng Zhu and Junfeng Hu. *arXiv preprint arXiv:1707.01521*, 2017.

## Dialog state tracking with attention-based sequence-to-sequence learning

Takaaki Hori, Hai Wang, Chiori Hori, Shinji Watanabe, Bret Harsham, Jonathan Le Roux, John R Hershey, Yusuke Koji, Yi Jing, **Zhaocheng Zhu** and Takeyuki Aikawa. In *IEEE Spoken Language Technology Workshop (SLT)*, pp. 552-558, 2016. (Runner up at Dialog State Tracking Challenge 5)

## SELECTED PROJECTS

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### GraphVite: A general and high-performance graph embedding system for various applications (with GraphVite team)

General and high-performance graph embedding system. Support 3 applications, 9 models and more than 30 baseline benchmarks. Over 400 stars and 400 downloads.

<https://graphvite.io>    <https://github.com/DeepGraphLearning/graphvite>

### Literature of Deep Learning for Graphs (with Meng Qu and Weiping Song)

Comprehensive paper list of deep learning for graphs. Over 2,000 stars.

<https://github.com/DeepGraphLearning/LiteratureDL4Graph>

### Aleo: A toolkit for Mahjong AI (with Fangyin Wei)

Winner of 2018 Game AI course at Peking University, with a win rate of 46.8% in the 4-player Mahjong.

<https://github.com/KiddoZhu/Aleo>

### Find It! (with Jun Gao)

Efficient parallel implementation of dynamic dictionary matching.

<https://github.com/KiddoZhu/FindIt>

## HONORS AND AWARDS

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Tuition Fee Exemption Scholarships, Université de Montréal	2019 - 2021
Outstanding Graduate Student, Peking University	2018
Outstanding Research Award, Peking University	2016
Kwang-Hua Scholarship, Peking University	2016
Honorable Mention, Mathematical Contest in Modeling (MCM)	2016
Merit Student, Peking University	2015
Tung OCCL Scholarship, Peking University	2015
Honorable Mention, Mathematical Contest in Modeling (MCM)	2015
Group Champion, Peking University Debate Competition for Freshman	2014

## SERVICE

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Reviewer, GRL Workshop, NeurIPS 2019

League branch secretary, Society of Photography, Peking University    *Sep. 2017 - June 2018*

Leader of story portrait group, Society of Photography, Peking University    *Apr. 2015 - Aug. 2017*

Member of organizers & news team, HackPKU, Peking University    *Apr. 2016*

## SKILLS

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### Programming Languages:

- Proficient: C/C++, Python, Pascal/Object Pascal
- Capable: MATLAB, SQL, Bash, Assembly, HTML/CSS

**Frameworks:** CUDA, PyTorch, MXNet, Keras, TensorFlow

**Toolchains:** Git, L<sup>A</sup>T<sub>E</sub>X, GDB, CMake, Conda, Photoshop

**Languages:** Mandarin Chinese(native), English(proficient), French(beginner)