Yihao Fang

Contact Information

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Educational Background

2013-2020 **Doctor of Philosophy (Ph.D.)**, Computer Science, McMaster University, CA

Thesis: *Deep Learning on the Edge: Model Partitioning, Caching, and Compression*

Research Interests: *Computer Vision, Distributed Machine Learning, Edge Intelligence, and Natural Language Processing*

2011-2013 **Master of Engineering (M.Eng.)**, Software Engineering, McMaster University, CA

Project: *Machine Learning Approaches to Speech and Language Processing*

Research Interests: *Machine Learning, Speech Recognition, and Natural Language Processing*

2002-2006 **Bachelor**, Software Engineering, Tongji University, CN

Activities and Societies: *Head of External Relationship Department of Student Union, Leader of the volunteer team*

Employment History

Academic

01/21-present **Course Director**, York University, CA

Lecturing GS/EECS6127 / Machine Learning Theory and evaluation of students subject to departmental policy. Preparation of on-line course materials, assignments, tests, final examinations and deferred examinations.

09/18-04/19 **Research Assistant**, *Computer Vision & Analytics project*, McMaster University, CA

09/17-12/17 **Teaching Assistant**, *COMPSCI 4HC3 / SFWRENG 4HC3 / Human Computer Interaction,* McMaster University, CA

01/15-04/15 **Teaching Assistant**, *COMPSCI 2XB3 / SFWRENG 2XB3 / Practice and Experience: Binding Theory to Practice*, McMaster University, CA

Other

11/16-present **Founder & CEO**, Lexivalley Inc., CA

Lexivalley Inc. is an A.I. company specializing in deep-learning-based educational robotics systems. We offer A.I. education to the youth through an interactive robotics platform which lowers the learning barrier for children who are being our next generation A.I. masters.
My Responsibilities: Leading R&D, teaching pilot courses, writing grant proposals, and participating in marketing and talent acquisition.

03/13-11/16 **Senior Software Developer**, Oracle, CA

Contributed to the software releases of an Enterprise Resource Planning product (E-Business Suite)

05/11-02/13 **Senior Software Developer**, Rogers Communications, CA

01/11-04/11 **Data Management Officer**, Ontario Ministry of the Environment, CA

Contributed to Toxics Reporting & Information System (TRAIS) for Toxics Reduction Act, 2009 & O. Reg. 455/09

09/08-10/10 **Application Engineer**, Oracle, CN

Contributed to the software releases of Oracle Workflow and Oracle SOA Gateway

07/06-08/08 **Software Engineer**, Hewlett-Packard, CN

Grant & Fellowship

2019-2020   McMaster University Faculty of Engineering SummerTech Entrepreneur Fellowship

Publications

Referred

- Fang, Yihao, Ziyi Jin, and Rong Zheng. "TeamNet: A Collaborative Inference Framework on the Edge." In 2019 IEEE 39th International Conference on Distributed Computing Systems (ICDCS), pp. 1487-1496. IEEE, 2019.

- Dou, Yangliu, Yihao Fang, Chuan Hu, Rong Zheng, and Fengjun Yan. "Gated branch neural network for mandatory lane changing suggestion at the on-ramps of highway." IET Intelligent Transport Systems 13, no. 1 (2018): 48-54.

Other

- Fang, Yihao, Shervin Manzuri Shalmani, and Rong Zheng. "CacheNet: A Model Caching Framework for Deep Learning Inference on the Edge." arXiv preprint arXiv:2007.01793 (2020).

- Dou, Yangliu, Yihao Fang, Chuan Hu, Rong Zheng, and Fengjun Yan. "Prediction of the Surrounding Vehicles' Discretionary Lane Changing Intention at Freeway: A Gated Recurrent Units Approach." DRIVER BEHAVIOUR PREDICTION MODELS USING ARTIFICIAL INTELLIGENCE ALGORITHMS AND STATISTICAL MODELING (2019): 71.

- Fang, Yihao, Rong Zheng, and Xiaodan Zhu. "Logographic Subword Model for Neural Machine Translation." arXiv preprint arXiv:1809.02592 (2018).