

HUANG FANG

5960 Student Union Blvd. \diamond Vancouver, BC \diamond (778) \cdot 223 \cdot 2039 \diamond hgfang@cs.ubc.ca

EDUCATION

- University of British Columbia, Canada** Sep. 2017 - Present
Ph.D. in Computer Science
Supervisor: Michael P. Friedlander
Area: Mathematical optimization, coordinate descent, SGD, learning theory.
- University of California, Davis** Sep. 2015 - June 2017
M. S. in Statistics & Computer Science(double major)
Worked with Prof. Cho-Jui Hsieh, Overall GPA: 3.98/4.0
- Central University of Finance and Economics, China** Sep. 2011 - June 2015
B.S. in Financial Math, Overall GPA: 91.2/100

EXPERIENCE

- Optimization Research Intern, 1Qbit, Vancouver** May 2020 - Aug 2020
- Developing a combinatorial optimization software based on local search algorithms.
 - Using reinforcement learning to learn the hyperparameter used in the local search algorithms.
- Research Intern, Baidu Research** June 2019 - August 2019
- Developed a hybrid coordinate descent algorithm as an alternative for approximate greedy coordinate descent with MIPS (maximum inner product search) algorithms.
 - Established the convergence rate of the new algorithm and conducted extensive experiments to evaluate the new algorithm. One paper submitted.

PUBLICATIONS

1. **H. Fang**, N. Harvey, V. Portella, M. Friedlander. Online mirror descent and dual averaging: keeping pace in the dynamic case. In *International Conference on Machine Learning, 2020*.
2. **H. Fang**, Z. Fan, Y. Sun, M. Friedlander. Greed Meets Sparsity: Understanding and Improving Greedy Coordinate Descent for Sparse Optimization. In *International Conference on Artificial Intelligence and Statistics (AISTATS), 2020*.
3. **H. Fang**, M. Cheng, C. J. Hsieh, M. Friedlander. Fast One-versus-All Training for Extreme Classification using Tree-Structured Initialization. In *SIAM International Conference on Data Mining (SDM), 2019*.
4. **H. Fang**, M. Cheng, C. J. Hsieh. A Hyperplane-based Algorithm for Semi-supervised Dimension Reduction. In *IEEE International Conference on Data Mining (ICDM), 2017*.
5. **H. Fang**, Z. Zhang, Y. Shao, C. J. Hsieh. Improved Bounded Matrix Completion for Large-Scale Recommender Systems. In *International Joint Conference on Artificial Intelligence (IJCAI), 2017*.

AWARDS & OTHERS

SIAM Student Travel Award 2019

Programming Python, PyTorch, Julia, R, C++, Matlab, Bash, MySQL, L^AT_EX
Personal Page <http://www.cs.ubc.ca/~hgfang>