57 Royal Orchard Dr.
Kitchener, ON, Canada
+1 (226) 606 8385
eycheung@uwaterloo.ca
edche.github.io
www.github.com/edche

Eddie Cheung

Research Interests

I am passionate about optimization algorithms and numerical methods for machine learning. My current focus is on efficient low-rank optimization learning leading to practical algorithms for large-scale optimization, readily usable for recommender systems. I am also interested in nonsmooth analysis for robust learning resilient to noisy and corrupted data.

Education

2013-Present **PhD** *University of Waterloo*, Waterloo, ON.
Department of Computer Science

2007–2012 **BMath** *University of Waterloo*, Waterloo, ON.
Department of Combinatorics and Optimization

Experience

2012–2013 **Software Developer** *PureFacts Financial Solutions*, Toronto.
Database and front-end engineer.

2010 **Defence Research Student** *Department of National Defence*, Ottawa.
Researched optimization algorithms to solve large multi-objective mixed integer programs.

2010 **Imaging Research Student** *Sunnybrook Health Sciences Centre*, Toronto.
Implemented a parallel (CUDA) compressive sensing based image reconstruction algorithm.

Technical Skills

Languages *Python, SQL, Matlab, C++.*

Packages *numpy, scipy, scikit-learn, pandas, tensorflow.*

Publications

Cheung, E. Y. and Li, Y. "Projection Free Rank-Drop Steps." *2017 International Joint Conference on Artificial Intelligence (IJCAI).*

Cheung, E. Y. and Li, Y. "Self-Training with Adaptive Regularization for S3VM." *"2017 International Joint Conference on Neural Networks (IJCNN). IEEE, 2017.*

Chan, Rachel W., Ramsay, E. A., **Cheung, E. Y.**, and Plewes, D. B. "The influence of radial undersampling schemes on compressed sensing reconstruction in breast MRI." *Magnetic Resonance in Medicine* 67.2 (2012): 363-377.

Pall, Raman, and **Cheung, E. Y**. "On stockpile planning using a multi-objective genetic algorithm." *Computational Intelligence for Measurement Systems and Applications (CIMSA), 2011 IEEE International Conference on.* IEEE, 2011.