

Eddie Cheung

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About me

- Finishing PhD in **machine learning**
- Research in **optimization algorithms**
- Experience in **scalable solutions** and **large data**
- Knowledgeable about many ML tasks

Education

- 2013- 2018 **PhD** *University of Waterloo*, Waterloo, ON.
Department of Computer Science (Expected grad. April 2018)
- 2007-2012 **BMath** *University of Waterloo*, Waterloo, ON.
Department of Combinatorics and Optimization

Work Experience

- 2012-2013 **Software Developer** *PureFacts Financial Solutions*, Toronto.
Improved the automation pipeline (SQL, C#, Python) for client-side processes.
- 2010 **Defence Research Student** *Department of National Defence*, Ottawa.
Researched optimization algorithms (Matlab) to solve large multi-objective mixed integer programs.
- 2010 **Imaging Research Student** *Sunnybrook Health Sciences Centre*, Toronto.
Implemented a parallel (CUDA) image reconstruction algorithm, 27x speedup.

Selected Publications

- [1] **Cheung, E. Y.** and Li, Y. "Nonsmooth Frank-Wolfe using Uniform Affine Approximations." arXiv preprint arXiv:1710.05776 (2017).
- [2] **Cheung, E. Y.** and Li, Y. "Projection Free Rank-Drop Steps." *2017 International Joint Conference on Artificial Intelligence (IJCAI)*.
For a complete list, see <https://scholar.google.ca/citations?user=360a1vkAAAAJ&hl=en>.

Projects

- **Movie Recommendations**: Scalable low-rank matrix completions using Rank-Drop Frank-Wolfe.
- **Social Graph Suggestion**: Sparse + Low-Rank learning to identify missing links in a social graph.
- **Sudoku Solver**: Basic solver. The canonical start to learning AI.
- **Go AI**: Very rudimentary (pre-AlphaGo) Go AI using genetic algorithms for pruning.
- **IPO Price Swings** - Scraped tweets and news articles to try to predict whether the IPO price is over or under priced based on sentiment analysis