

Reza Babanezhad Harikandeh

Curriculum vitae

RESEARCH INTEREST

My main research interests are: Stochastic Optimization Methods, Generative Models, Bayesian Inference, Deep Learning Theory.

PUBLICATIONS

- Babanezhad, R., et. al., "MASAGA: A Linearly-Convergent Stochastic First-Order Method for Optimization on Manifolds", ECML, 2018.
- Laradji, I., Babanezhad, R., et. al., Domain Adaptation with Deep Metric Learning, ICML DAVU workshop, 2018.
- Le-Roux, N., Babanezhad, R., et. al., Online Variance Reduction, ICLR workshop track, 2018.
- Zolaktaf, Z., Babanezhad, R., Potinger, R., A Generic Top-N Recommendation Framework For Trading-off Accuracy, Novelty, and Coverage, ICDE, 2018.
- Khan, M. E., Babanezhad, R., et. al., Faster Stochastic Variational Inference using Proximal-Gradient Methods with General Divergence Functions, UAI, 2016.
- Babanezhad, R., et. al., Stop wasting my gradient: Practical SVRG, NIPS, 2015.
- Schmidt, M., Babanezhad, R., Ahmed, M.O., Clifton, A., and Sarkar, A. Non-uniform stochastic average gradient method for training conditional random fields. AISTAT 2015.
- E. Wholfstadt, R. Babanezhad: Denormalization Middleware for Database-as-a-Service, SOCA 2013.
- R. Babanezhad, Y. Mehrdad, R. Ramsin: Process Pattern for Web Engineering, COMPSAC 2010.

ONGOING PROJECTS

- Faster and General Convergence Rate for EM Algorithm, in collaboration with **UBC** faculty members.
- Adaptive Variance Reduced Methods for Monotone Operators, Technical report, UBC 2018.
- Functionality-preserved adversarial training, in collaboration with **ElementAI**, 2018-2019.
- Hierarchical disentanglement in Variational Auto-encoder, in collaboration with **Microsoft** and **1-Qbit**, 2018-2019.

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EDUCATION

- 2014 – NOW **Machine Learning group**
PHD COMPUTER SCIENCE
Computer Science, UBC
- 2011 – 2014 **Software Practice Lab**
MSc(AND 1ST YEAR OF PHD)
COMPUTER SCIENCE
Computer Science, UBC
- 2008 – 2011 **Software group**
M.Sc. SOFTWARE ENGINEERING
Software Engineering, Sharif University, Tehran/Iran
- 2001 – 2006 **Software group**
B.Sc. SOFTWARE ENGINEERING
Software Engineering, Sharif University, Tehran/Iran

WORK EXPERIENCE

Sep-Dec 2017
Google Brain, Montreal, Canada
Research Intern in ML group Robust stochastic gradient descent

Jan-Apr 2017
Dwave System, Vancouver, Canada
Research Intern in ML group Understanding and improving generalization in Deep Neural Networks

Jun-Sept 2016
Inria research center, Paris, France
Research Intern (MITACS Globalink Award):
Research Intern under supervision of **Francis Bach**,
specifically working on stochastic algorithms using monotone operators for saddle point problem

2013-2014
Recon, Vancouver, BC, Canada
MITACS Intern: Enabling Spark as new big data processing engine for the company

2010-2011
Miad Company, Tehran, Iran
Software Designer, Developer, Documenter

2006-2009

Avaan Company, Tehran, Iran
Software Designer, Developer

TALKS

ISMP 2018, WCOM 2018 Convergence
Rate for EM
algorithm

ICCOF 2016, WCOM 2016 Practical SVRG

SKILLS

PROGRAMMING LANGUAGE Java, Python,
Matlab

TOOLS Apache Spark,
Tensor-Flow

LANGUAGE English, Farsi

REFERENCES

- Mark Schmidt
- Francis Bach
- Nicolas Le-Roux
- Eric Wholfstadtre
- Raman Ramsin