Mike Izbicki

About Me

I study machine learning theory, especially as applied to large scale social media data. I also develop of open source libraries for machine learning and scientific computing in the functional programming language Haskell.

Email: mike@izbicki.me
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Github: http://github.com/mikeizbicki

Academic Appointments

Postdoc	University of California Riverside, USA	2017-2019
Visiting Professor	Pyongyang University of Science and Technology, DPRK	2015-2016
Lecturer	University of California Riverside, USA	2013-2015

Military Experience

Midshipman (2004-2008), Ensign (2008-2011). Engineering Officer of the Watch for S5W nuclear reactor. Assistant Security Officer for Naval Submarine School.

Education

University of California Riverside   2011-2017
PhD, Computer Science
Advisor: Christian R. Shelton

Johns Hopkins University   2008
MS, Computer Science

United States Naval Academy   2004-2008
BS, Computer Science

Publications

Currently under review:

1. Mike Izbicki, Vagelis Papalexakis, Vassilis Tsotras. "Geolocating Tweets Written in Any Language Sent from Any Location."

2. Mike Izbicki. "Gradient Clipping Makes Stochastic Gradient Descent Robust to Adversarial Noise."

3. Mike Izbicki, and Christian Shelton. "Communication-Efficient Distributed Maximum Likelihood Estimation with the Optimal Weighted Average."

Refereed papers:

4. Mike Izbicki, Sajjad Amini, Christian Shelton, and Hamed Mohensian-Rad. "Identification of Destabilizing Attacks in Power Systems" American Controls Conference (ACC), 2017.

5. Mike Izbicki, Christian Shelton. "Faster Cover Trees," International Conference of Machine Learning (ICML), 2015.

6. Mike Izbicki. "Algebraic classifiers: a generic approach to fast cross-validation, online training, and parallel training," International Conference of Machine Learning (ICML), 2013.

Workshop papers, invited presentations, and small articles:

7. "Merging Neural Networks." Presented at SoCalML, August 2017.

8. "Faster Cover Trees." Presented at CalState Fullerton, August 2016.

9. "Open Sourcing the Classroom." Graduate student research competition at SigCSE 2016. Received 3rd place award.

10. "Open Sourcing the Classroom." International Conference of the Pyongyang University of Science and Technology (IcoPUST), 2015.

11. "Bashing Haskell: Reimplementing Haskell's Parsec Library in the Unix Shell." Sig-BOVIK 2015.

12. "Modeling data with algebra." Workshop on Data Centric Programming (DCP), 2014.

13. "HLearn: a machine learning library for Haskell." Trends in Functional Programming (TFP), 2013.

14. "The open source software package HLearn." Workshop on Machine Learning Open Source Software (MLOSS), 2013.

15. "Two monoids for solving NP-complete problems." The Monad Reader, 2013.

16. "Machine learning? Why not monoids?" Presented at Facebook, September 2013.

Teaching

Lecturer at the Pyongyang University of Science and Technology (PUST) for:

Open Source Machine Learning Software (graduate level)	Fall 2016
Algorithm Design	Fall 2016
Algorithm Design	Fall 2015
Discrete Math	Fall 2015

Lecturer at the University of California Riverside (UCR) for:

Software Construction	Spring 2015
Software Construction	Winter 2015
Software Construction	Fall 2014
Software Construction	Summer 2014
Introduction to the World Wide Web	Winter 2014
Intermediate Data Structures and Algorithms	Fall 2013
Introduction to Data Structures	Spring 2013

Teaching assistant at UCR for:

Software Construction	Spring 2014
Introduction to Computer Science II	Winter 2013
Introduction to Computer Science I	Fall 2012
Computer Security	Fall 2012

Awards

1. US Congressional and California Assembly Recognition awards for contributing to peace on the Korean peninsula through computer science education (2018)

2. SIGCSE graduate student research competition, 3rd place (2016)

3. UCR Dean's Fellowship (2011)

4. Naval Nuclear Propulstion Training Command (NNPTC) Honor Graduate (2009)

5. Naval VGEP Fellowship (2008)

Other Activities

1. Coach for UCR's International Collegiate Programming Competition (ICPC) team (2014-2015)

2. Team leader for CodeAvengers summer camp for elementary and middle schoolers (2013)