
Mike Izbicki

ABOUT ME

I study machine learning theory, with an emphasis on multilingual natural language processing of large scale social media data.

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Website: <http://izbicki.me>

Github: <http://github.com/mikeizbicki>

ACADEMIC APPOINTMENTS

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|---------------------|------------------------------------------------------|-----------|
| Assistant Professor | Claremont McKenna College, USA | 2019- |
| 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
Thesis: Divide and Conquer Algorithms for Machine Learning

Johns Hopkins University 2008
MS, Computer Science

United States Naval Academy 2004-2008
BS, Computer Science

PUBLICATIONS

Peer reviewed conference papers:

1. Mike Izbicki, Vagelis Papalexakis, Vassilis Tsotras. “Geolocating Tweets Written in Any Language Sent from Any Location.” Conference on Information and Knowledge Management (CIKM), 2019.
2. Mike Izbicki, Vagelis Papalexakis, Vassilis Tsotras. “Exploiting the Earth’s Spherical Geometry to Geolocate Images,” European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (ECML/PKDD), 2019.
3. Mike Izbicki, and Christian Shelton. “Communication-Efficient Distributed Maximum Likelihood Estimation with the Optimal Weighted Average,” European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (ECML/PKDD), 2019.

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.

Peer reviewed workshop papers:

1. Nathan Stringham and Mike Izbicki, “Evaluating Word Embeddings on Low-Resource Languages,” Proceedings of the First Workshop on Evaluation and Comparison of NLP Systems, 2020.
2. Stefanos Stoikos and Mike Izbicki, “Multilingual Emoticon Prediction of Tweets about COVID-19,” Proceedings of the Third Workshop on Computational Modeling of People’s Opinions, Personality, and Emotions in Social Media, 2020.
3. Mike Izbicki, Christian R. Shelton. “Distributed Learning of Neural Networks with One Round of Communication.” Distributed Machine Learning at the Edge (DMLE), 2019.
4. Mike Izbicki, Evangelos Papalexakis and Vassilis Tsotras. “The MvMF Loss for Predicting Locations on the Earth’s Surface.” MACHine Learning for EArth ObservatioN (MACLEAN), 2019.
5. “Open Sourcing the Classroom.” International Conference of the Pyongyang University of Science and Technology (IcoPUST), 2015.
6. “HLearn: a machine learning library for Haskell.” Trends in Functional Programming (TFP), 2013.
7. “The open source software package HLearn.” Workshop on Machine Learning Open Source Software (MLOSS), 2013.

Non-peer reviewed articles:

1. Amir Feghahati, Mike Izbicki. “Automatic Discovery of Language Dialects via Explainable Machine Learning.” Southern California Symposium on Natural Language Processing (SoCalNLP), 2019.
2. Oscar Hernandez, Mike Izbicki. “Zero Shot Sentiment Analysis on Tweets in Any Language.” Southern California Symposium on Natural Language Processing (SoCalNLP), 2019.
3. Rany Tith, Mike Izbicki. “Word Vectors for 244 Countries from Tweets for 300 Spanish Dialects Using Factored Multiskipgram Model.” Southern California Symposium on Natural Language Processing (SoCalNLP), 2019.

4. “Merging Neural Networks.” Presented at SoCalML, August 2017.
5. “Open Sourcing the Classroom.” Graduate student research competition at SigCSE 2016. Received 3rd place award.
6. “Bashing Haskell: Reimplementing Haskell’s Parsec Library in the Unix Shell.” Sig-BOVIK 2015.
7. “Two monoids for solving NP-complete problems.” The Monad Reader, 2013.

Non-peer reviewed presentations:

1. “Geolocating Tweets Written in any Language Sent from Anywhere in the World.” UCR Data Science Center Seminar, February 2019.
2. “Faster Cover Trees.” Presented at CalState Fullerton, August 2016.
3. “Modeling data with algebra.” Workshop on Data Centric Programming (DCP), 2014.
4. “Machine learning? Why not monoids?” Presented at Facebook, September 2013.

TEACHING

Lecturer at Claremont McKenna College (CMC) for:

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| Computing for the Web (2 Sections) | Fall 2021 |
| Big Data | Spring 2021 |
| Data Structures | Spring 2021 |
| Data Mining | Fall 2020 |
| Computing for the Web | Fall 2020 |
| Deep Learning | Spring 2020 |
| Data Structures | Spring 2020 |
| Data Mining | Fall 2019 |
| Computing for the Web | Fall 2019 |

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

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| 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:

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| 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:

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|-------------------------------------|-------------|
| 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 Propulsion 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)