

Joon Sik Kim

Last Updated: April 4, 2021

PERSONAL INFORMATION

Email: joonkim@cmu.edu
Web: <http://www.cs.cmu.edu/~joonsikk>
Office: 8123 Gates Hillman Center, 5000 Forbes Avenue Pittsburgh PA 15213

RESEARCH INTEREST

- Machine learning for interpretability and fairness
- Deep learning for computer vision and reinforcement learning

EDUCATION

Carnegie Mellon University Doctor of Philosophy, Machine Learning (Advisor: Ameet Talwalkar)	Pittsburgh, PA Aug 2017 - Present
Carnegie Mellon University Master of Science, Machine Learning	Pittsburgh, PA May 2020
California Institute of Technology Bachelor of Science, Computer Science	Pasadena, CA June 2017

EXPERIENCE

Machine Learning Department, Carnegie Mellon University <i>Graduate Student</i>	Pittsburgh, PA Aug 2017 - present
J.P.Morgan AI Research <i>Summer Associate</i>	New York, NY May 2019 - Aug 2019
SK Inc. T-Brain <i>Machine Learning Research Intern</i>	Seoul, South Korea June 2017 - Aug 2017
Computer Vision Lab, California Institute of Technology <i>Undergraduate Research Student for Prof. Pietro Perona</i>	Pasadena, CA July 2016 - Dec 2016
California Institute of Technology <i>Undergraduate Research Student for Prof. Yisong Yue</i>	Pasadena, CA June 2015 - June 2016
California Institute of Technology <i>Undergraduate Research Student for Dr. Vasumathi Raman</i>	Pasadena, CA July 2014 - Nov 2014
Criminal Investigation Command, Ministry of National Defense <i>Soldier / Software Developer / Interpreter</i>	Seoul, South Korea Oct 2012 - July 2014

PEER-REVIEWED CONFERENCE PUBLICATIONS¹

6. Kwangho Kim, Jisu Kim, Manzil Zaheer, **Joon Sik Kim**, Frederic Chazal, Larry Wasserman. *Efficient Topological Layer based on Persistence Landscape*. Neural Information Processing Systems (NeurIPS), 2020
5. **Joon Sik Kim**, Jiahao Chen, Ameet Talwalkar. *FACT: A Diagnostic for Group Fairness Trade-offs*. International Conference on Machine Learning (ICML), 2020.
4. David I. Inouye, Leqi Liu, **Joon Sik Kim**, Bryon Aragam, Pradeep Ravikumar. *Automated Dependence Plots*. Uncertainty in Artificial Intelligence (UAI), 2020
3. David I. Inouye, Leqi Liu, **Joon Sik Kim**, Bryon Aragam, Pradeep Ravikumar. *Diagnostic Curves for Black Box Models*. Neural Information Processing Systems (NeurIPS) Workshop on Safety and Robustness, 2019
2. Chih-Kuan Yeh*, **Joon Sik Kim***, Ian E.H. Yen, Pradeep Ravikumar. *Representer Point Selection for Explaining Deep Neural Networks*. Neural Information Processing Systems (NeurIPS), 2018.
1. Matteo Ruggero Ronchi, **Joon Sik Kim**, Yisong Yue. *A Rotation Invariant Latent Factor Model for Movement Discovery from Static Poses*. IEEE International Conference on Data Mining (ICDM), 2016.

PRE-PRINTS

1. Valerie Chen*, Jeffery Li*, Gregory Plumb**, **Joon Sik Kim****, Ameet Talwalkar. *Towards .* arXiv Pre-print, 2021.

PROFESSIONAL ACTIVITIES

Reviewer (ICML 2021), Program Committee, Workshop on Fair AI in Finance (NeurIPS 2020).

FELLOWSHIPS, HONORS, AWARDS

Kwanjeong Foundation Graduate Research Fellowship (South Korea)	2017 - Present
Caltech Bhansali Prize in Computer Science	2017
Caltech CMS Celebration of Undergraduate Research Best Demo/Poster Award	2015
Caltech Summer Undergraduate Research Fellowship	2014, 2015, 2016
Caltech Physics 11 Summer Undergraduate Research Fellowship	2012

TEACHING

10-737 Creative AI (Machine Learning Department, Carnegie Mellon) Fall 2019

¹* indicates equal contribution