Joon Sik Kim

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PERSONAL INFORMATION

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EDUCATION

Carnegie Mellon University Pittsburgh, PA
Doctor of Philosophy, Machine Learning (Advisor: Ameet Talwalkar) In Progress

Carnegie Mellon University Pittsburgh, PA
Master of Science, Machine Learning May 2020

California Institute of Technology Pasadena, CA
Bachelor of Science, Computer Science June 2017

EXPERIENCE

Microsoft Research Redmond, WA
Summer Research Intern June 2021 - Aug 2021

J.P.Morgan New York, NY
Summer Intern at AI Research May 2019 - Aug 2019

SK Inc. T-Brain Seoul, South Korea
Machine Learning Research Intern June 2017 - Aug 2017

Computer Vision Lab, California Institute of Technology Pasadena, CA
Undergraduate Research Student for Prof. Pietro Perona July 2016 - Dec 2016

California Institute of Technology Pasadena, CA
Undergraduate Research Student for Prof. Yisong Yue June 2015 - June 2016

California Institute of Technology Pasadena, CA
Undergraduate Research Student for Dr. Vasumathi Raman July 2014 - Nov 2014

Criminal Investigation Command, Ministry of National Defense Seoul, South Korea
Soldier, Software Developer, Interpreter Oct 2012 – July 2014

Laser Interferometer Gravitational-wave Observatory (LIGO) - Caltech Pasadena, CA
Undergraduate Research Student for Dr. Parameswaran Ajith Jan 2012 - Aug 2012

PUBLICATIONS[1]

7. **Joon Sik Kim**, Gregory Plumb, Ameet Talwalkar. *Sanity Simulations for Saliency Methods.* International Conference on Machine Leaning (ICML), 2022.

6. Valerie Chen*, Jeffrey Li*, **Joon Sik Kim****, Gregory Plumb**, Ameet Talwalkar. *Interpretable Machine Learning: Moving From Mythos to Diagnostics.* ACM Queue 19.6 (2022): 28-56.

5. Kwangho Kim, Jisu Kim, Manzil Zaheer, **Joon Sik Kim**, Frederic Chazal, Larry Wasserman. *PLLay: Efficient Topological Layer based on Persistence Landscapes.* Neural Information Processing Systems (NeurIPS), 2020.

4. **Joon Sik Kim**, Jiahao Chen, Ameet Talwalkar. *FACT: A Diagnostic for Group Fairness Trade-offs.* International Conference on Machine Learning (ICML), 2020.

3. David I. Inouye, Leqi Liu, **Joon Sik Kim**, Bryon Aragam, Pradeep Ravikumar. *Automated Dependence Plots.* Uncertainty in Artificiail Intelligence (UAI), 2020.

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 Moveme Discovery from Static Poses.* IEEE International Conference on Data Mining (ICDM), 2016.

PRE-PRINTS / WORKSHOPS

1. Keegan Harris, Valerie Chen, **Joon Sik Kim**, Ameet Talwalkar, Hoda Heidari, Steven Wu. *Bayesian Persuasion for Algorithmic Recourse.* Neural Information Processing Systems (NeurIPS) Workshop on Human and Machine Decisions, 2021 (Oral Presentation).

PROFESSIONAL ACTIVITIES

Reviewer (ICML 2022, FAccT 2022, ICML 2021); Program Committee (Workshop on Fair AI in Finance, NeurIPS 2020).

FELLOWSHIPS, HONORS, AWARDS

Kwanjeong Foundation Graduate Research Fellowship (from South Korea)	2017 - 2021
Caltech Bhansali Family 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

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[1]* indicates equal contribution; including conference workshop papers