

# Kuan-Chieh (Jackson) Wang

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## 1 Research Interests

My current research focuses on **personalized generative AI**. My goal is to (*1*) build tools that allow users to tell their personal stories, and (*2*) find scientific insights about identity of real people.

## 2 Industry Experience

Present	<b>Research Scientist</b> , Snap Inc., Palo Alto USA Working on personalized Gen AI with Kfir Aberman and Sergey Tulyakov.
Dec. 2023	
Dec. 2018	<b>Research Intern</b> , Google, Toronto Canada
Sept. 2018	Worked within Google Brain team (TOR) with a focus on speech recognition with Chung-Cheng Chiu, and William Chan.
Sept. 2018	<b>Research Intern</b> , Google, Mountain View USA
Jun. 2018	Worked within Google Brain team (MTV) with a focus on speech recognition hosted by Chung-Cheng Chiu.
Jul. 2016	<b>Machine Learning Consultant</b> , SmartFinance LLC, NYC USA
Jan. 2015	Researched data-driven techniques for merchant resolution (MR). Developed tools for MR components such as NLP-based merchant name cleanup, logo retrieval, and location resolution.
Aug. 2013	<b>Software Development Intern</b> , Broadcom Corporation, San Diego USA
May. 2012	Developed on the NFC stack and various downstream application components and was involved in designing new protocol/specs. Worked with software verification team to develop unit testing scripts using Perl/C++.

## 3 Academic Experience / Education

11/2021 - 11/2023	Postdoc, Dept. of Computer Science, <b>Stanford University</b> , Stanford, USA Worked with professors Serena Yeung, C. Karen Liu, and Scott Delp.
09/2016 - 11/2021	Ph.D., Dept. of Computer Science, <b>University of Toronto</b> , Toronto, Canada Advisor: Richard Zemel Thesis: Learning to Handle Inputs not from the Training Distribution
09/2014 - 06/2016	M.Sc., Dept. of Computer Science, <b>University of Toronto</b> , Toronto, Canada Advisor: Richard Zemel Thesis: Classifying NBA Offensive Plays Using Neural Networks
09/2009 - 06/2014	B.ASc., Div. of Engineering Science, <b>University of Toronto</b> , Toronto, Canada Thesis: Automated Tuning of Neural Networks: Analysis of Hyperparameters Proposed by the Bayesian Optimization Framework

## 4 Publications

1. Gu, Jeffrey and **Kuan-Chieh Wang** and Yeung, Serena. "Generalizable Neural Fields as Partially Observed Neural Processes." ICCV, 2023.
2. **Kuan-Chieh Wang** and Weng, Zhenzhen and Xenochristou, Maria and Araujo, Joao Pedro and Gu, Jeffrey and Liu, C Karen and Yeung, Serena. "NeMo: 3D Neural Motion Fields from Multiple Video Instances of the Same Action." CVPR, 2023. (**Highlight (~2.5% of submissions)**)
3. Zohar, Orr and **Kuan-Chieh Wang** and Yeung, Serena. "PROB: Probabilistic Objectness for Open World Object Detection." CVPR, 2023.
4. Zhang, Yuhui and HaoChen, Jeff Z and Huang, Shih-Cheng and **Kuan-Chieh Wang** and Zou, James and Yeung, Serena. "DrML: Diagnosing and Rectifying Vision Models using Language." ICLR, 2023.
5. Weng, Zhenzhen and **Kuan-Chieh Wang** and Kanazawa, Angjoo and Yeung, Serena. "Domain Adaptive 3D Pose Augmentation for In-the-wild Human Mesh Recovery." 3DV, 2022.
6. Funke, Christina M and Vicol, Paul and **Kuan-Chieh Wang** and Kümmerer, Matthias and Zemel, Richard and Bethge, Matthias. "Disentanglement and generalization under correlation shifts." Conference on Life-long Learning Agents, 2022.
7. **Kuan-Chieh Wang** and Fu, Yan and Li, Ke and Khisti, Ashish and Zemel, Richard and Makhzani, Alireza. "Variational Model Inversion Attacks." NeurIPS, 2021.
8. Wang, Jixuan and **Kuan-Chieh Wang** and Rudzicz, Frank and Brudno, Michael. "Grad2Task: Improved Few-shot Text Classification Using Gradients for Task Representation." NeurIPS, 2021.
9. Behrmann, Jens and Vicol, Paul and **Kuan-Chieh Wang** and Grosse, Roger B and Jacobsen, Jörn-Henrik. "Understanding and mitigating exploding inverses in invertible neural networks." AISTATS, 2021.
10. **Kuan-Chieh Wang** and Paul Vicol and Eleni Triantafillou and Richard Zemel. "Few-shot Out-of-Distribution Detection." ICML Workshop on Uncertainty and Robustness in Deep Learning, 2020. (**Spotlight**)
11. Grathwohl, Will and **Kuan-Chieh Wang** and Jacobsen, Jörn-Henrik and Duvenaud, David and Zemel, Richard. "Cutting out the Middle-Man: Training and Evaluating Energy-Based Models without Sampling." ICML, 2020.
12. Grathwohl, Will and **Kuan-Chieh Wang** and Jacobsen, Jörn-Henrik and Duvenaud, David and Norouzi, Mohammad and Swersky, Kevin. "Your classifier is secretly an energy based model and you should treat it like one." ICLR, 2020. (**Oral**)
13. **Kuan-Chieh Wang** and Wang, Jixuan and Truong, Khai and Zemel, Richard. "Customizable Facial Gesture Recognition For Improved Assistive Technology." ICLR AI for Social Good Workshop, 2019.
14. **Kuan-Chieh Wang** and Liu, Chia-Cheng and Vicol, Paul and Zemel, Richard. "Towards Few-Shot Out-of-Distribution Detection." ICLR Safe Machine Learning Workshop, 2019.
15. Shen, Jonathan and Nguyen, Patrick and Wu, Yonghui and Chen, Zhifeng and Chen, Mia X and Jia, Ye and Kannan, Anjuli and Sainath, Tara and Cao, Yuan and Chiu, Chung-Cheng and others. "Lingvo: a modular and scalable framework for sequence-to-sequence modeling." Technical Report, 2019.
16. Wang, Jixuan and **Kuan-Chieh Wang** and Law, Marc T and Rudzicz, Frank and Brudno, Michael. "Centroid-based deep metric learning for speaker recognition." ICASSP, 2019.
17. **Kuan-Chieh Wang** and Paul Vicol and James Lucas and Li Gu and Roger Grosse and Richard Zemel. "Adversarial distillation of Bayesian neural network posteriors." ICML, 2018.
18. Kipf, Thomas and Fetaya, Ethan and **Kuan-Chieh Wang** and Welling, Max and Zemel, Richard. "Neural Relational Inference for Interacting Systems." ICML, 2018.
19. Li, Yujia and Schwing, Alexander and **Kuan-Chieh Wang** and Zemel, Richard. "Dualing GANs." NeurIPS, 2017. (**Spotlight**)
20. **Kuan-Chieh Wang** and Zemel, Richard. "Classifying NBA offensive plays using neural networks." MIT Sloan Sports Analytics Conference, 2016.

## 5 Awards and Honors

- 2017-2018 Bell Graduate Scholarship from *University of Toronto*
- 2014-2015 Mitacs Accelerate Grant with *University of Toronto & Toronto Raptors*
- 2011 Honorable Mention - Basic Science at *International Paediatric Radiology Conference*
- 2011 Dream of a Cure Studentship from *Canadian Hemophilia Society*
- 2009-2011 Queen Elizabeth II Aiming for the Top Scholarship

## 6 Services

### **Conference Reviewer:**

NeurIPS: 2019, 2021 ([Top 8% Reviewer](#))  
ICML 2019, 2020 ([Top Reviewer](#)), 2021  
ICLR: 2019, 2020, 2021 ([Reviewer Award](#))  
CVPR: 2021

**Conference Volunteer:** AISTATS (2021)