

Jake SNELL

PERSONAL

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EDUCATION

JAN 2014-Present	PhD Student in Computer Science, Machine Learning group University of Toronto, Toronto ON CANADA Candidacy Achieved Jan. 2017 Supervisor: Prof. Richard S. ZEMEL
SEP 2012-JAN 2014	Master of Science in Computer Science University of Toronto, Toronto ON CANADA Thesis: <i>Structured Output Learning with Multiple Ground Truths</i>
SEP 2006-MAY 2010	Bachelor of Science in Biomedical Engineering, GPA: 3.82 / 4.00 Yale University, New Haven CT USA Graduated <i>cum laude</i> with distinction in the major Thesis: <i>Optimization of PET Image Reconstr. via Kernel Decomposition</i>

PUBLICATIONS

- Mengye Ren, Eleni Triantafillou, Sachin Ravi, **Jake Snell**, Kevin Swersky, Josh B. Tenenbaum, Hugo Larochelle & Richard Zemel. “Meta-Learning for Semi-Supervised Few-Shot Classification”. (ICLR 2018)
- **Jake Snell**, Kevin Swersky & Richard Zemel. “Prototypical Networks for Few-Shot Learning”. (NIPS 2017)
- **Jake Snell** & Richard Zemel. “Stochastic Segmentation Trees for Multiple Ground Truths”. (UAI 2017)
- **Jake Snell**, Karl Ridgeway, Renjie Liao, Brett Roads, Michael C. Mozer & Richard S. Zemel. “Learning to Generate Images with Perceptual Similarity Metrics”. (ICIP 2017)

CONFERENCE REVIEWING

- Neural Information Processing Systems (NIPS) 2017, 2018.
- International Conference on Machine Learning (ICML) 2018.
- International Conference on Learning Representations (ICLR) 2017, 2018.

HONORS, AWARDS & MEMBERSHIPS

- 2017: **Finalist** for Best Student Paper Award (“Learning to Generate Images with Perceptual Similarity Metrics”, ICIP 2017).
- 2014: **Winner** of Best Presentation Award at Intl. Computer Vision Summer School (ICVSS) 2014

COURSEWORK

University of Toronto (*Graduate Level*)

2016	Differentiable Inference and Generative Models. A+ Monte Carlo Estimation. A Numerical Methods for Optimization. A+
2015	Object Modelling and Visual Recognition with Text. A
2014	Foundations of Computer Vision. A
2013	Computational Linguistics. A+ Advanced Machine Learning. A
2012	Introduction to Machine Learning. A+ Algorithm Design, Analysis and Theory. A+

TEACHING & SUPERVISION EXPERIENCE

- Co-supervised final-year thesis research project for undergraduate students: *Task Specific Visual Saliency Prediction* (Reem Helou, 2014), and *An Inhibition-of-Return Mechanism for Neural Recurrent Attention* (Tianrui Xiao, 2016).
- Teaching Assistant (8x) for courses including: *Probabilistic Learning & Reasoning*, *Machine Learning & Data Mining* and *Introduction to Computer Science*.

WORK EXPERIENCE

JUN 2016-AUG 2016	Twitter , Cambridge MA USA <i>Machine Learning Research Intern, Advanced Technologies Group</i> ·Developed novel few-shot learning technique (<i>prototypical networks</i>).
AUG 2013-JUN 2016	SmartFinance LLC , New York NY USA <i>Machine Learning Consultant</i> ·Built statistical models to automatically categorize user transactions. ·Designed lookup algorithm to match noisy transaction strings with merchants.
JUL 2010-JUN 2012	ZS Associates , Princeton NJ USA <i>Business Analytics Associate</i> ·Designed multinational market demand estimation study for a novel respiratory treatment, and discovered key business insights from its results. ·Designed and administered nationwide sales force incentive compensation plan for an innovative autoimmune disorder therapy.
JUN 2009-AUG 2009	Mayo Clinic , Rochester MN USA <i>Summer Undergraduate Research Fellow</i> ·Developed new image acquisition techniques for improving magnetic resonance angiography in the diagnosis of peripheral arterial disease.
JUN 2008-AUG 2008 & JUN 2007-AUG 2007	Lockheed Martin , Moorestown NJ USA <i>Software Engineering Intern</i> ·Redesigned and optimized C-language software components to interface between operating systems and high-level applications. ·Implemented Java server and client modules for a new situational awareness system.

CONFERENCES AND EVENTS ATTENDED

- Neural Information Processing Systems (NIPS) 2013, 2014, 2015, 2017.
- Uncertainty in Artificial Intelligence (UAI) 2017.
- International Conference on Image Processing (ICIP) 2017.
- International Computer Vision Summer School (ICVSS) 2014, Sicily, ITALY
- CIFAR Neural Computation & Adaptive Perception (NCAP) Summer School 2013, Toronto, ON, CANADA

SKILLS

PROGRAMMING: Python (incl. PyTorch, Tensorflow, NumPy, Matplotlib), Julia, Matlab, C++
COMPUTING: Amazon EC2, \LaTeX , Linux, HTML, Microsoft Excel, Microsoft Access
LANGUAGES: Korean (TOPIK Level 2), German (intermediate)