Skyler Seto

EDUCATION

Cornell University **August 2014 - August 2020**
Ph.D. in Statistics
M.Sc. in Computer Science
Advising: Martin T. Wells, Andrew G. Wilson, Thorsten Joachims

Massachusetts Institute of Technology **September 2010 - June 2014**
B.Sc. in Mathematics with Computer Science

RESEARCH INTERESTS

My research interests are at the intersections of adaptive and conditional computation, model compression, and model fairness and robustness. I work on developing models and algorithms that adaptively use model compute and data to better generalize based on inherent data difficulty.

WORK EXPERIENCE

Apple ML Research **Sep 2020 - Present**
∘ Developing algorithms for efficient model learning based on inherent data difficulty
∘ Developing methods for evaluation of talking faces

Toyota and Tohoku University **June 2018 - August 2018**
∘ Developed MIP models for e-Palette passenger travel routing and pricing

Amazon Alexa Speech and ML Group **May 2017 - August 2017**
∘ Experimented with neural architectures for text normalization and tokenization

Riot Games Data Science Team **May 2016 - August 2016**
∘ Used online time series forecasting models to detect network connection anomalies

MIT Anyscale Learning For All Group **May 2015 - August 2015**
∘ Built tools and models for car destination prediction and trip signal forecasting

RECENT PUBLICATIONS

Selected Publications **Sep 2020 - Present**
∘ *Aldeneh, Z., Fedzechkina, M.,* ***Seto, S.****, Metcalf, K., Sarabia, M., Apostoloff, N., and Theobald, B. J. (2022). Towards a Perceptual Model for Estimating the Quality of Visual Speech. arXiv preprint arXiv:2203.10117.*
∘ *Yan, B.*,* ***Seto, S.*****, and Apostoloff, N. (2022). FORML: Learning to Reweight Data for Fairness. arXiv preprint arXiv:2202.01719.*
∘ ***Seto, S.****, Wells, M. T., and Zhang, W. (2021). Halo: Learning to prune neural networks with shrinkage. In Proceedings of the 2021 SIAM International Conference on Data Mining (SDM) (pp. 558-566). Society for Industrial and Applied Mathematics.*
∘ *Zhang, W.,* ***Seto, S.****, and Jha, D. K. (2020, March). CAZSL: Zero-Shot Regression for Pushing Models by Generalizing Through Context. In 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) (pp. 7131-7138). IEEE.*

ML AND AI PROJECTS

Predicting Student Final Grades **January 2016 - May 2016**
∘ Used approximate inference algorithm for predicting the distribution of final grades
∘ Presentation to the Cornell Learning Analytics Group

Human Activity Classification **January 2015 - September 2015**
∘ Designed algorithm based on dynamic time warping for automatic feature selection
∘ Published in 2015 IEEE Symposium Series on Computational Intelligence

Linguistic Differences in Reddit Users **August 2015 - December 2015**
∘ Used language models and lexicon statistics to classify user involvement on reddit

SOFTWARE

Programming Languages: Python, R, MATLAB
Deep Learning Frameworks: PyTorch, Keras, Tensorflow
Technology: Git, Hadoop, Spark, SQL

SERVICE

RECENT ACADEMIC REVIEWING: ICML 2022, FAccT 2022
OTHER: Apple AI/ML Scholars Fellowship 2022