Liam Li

Carnegie Mellon University – Machine Learning Department
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Education

Carnegie Mellon University **Pittsburgh, PA**
PhD, Masters in Machine Learning (GPA: 4.0/4.0) *May 2020 (Expected)*
Conducting research with Prof. Talwalkar on hyperparameter optimization and AutoML.

Caltech **Pasadena, CA**
Bachelors in Applied Math (GPA: 4.0/4.0) *2007–2011*

Employment

Google **New York, NY**
Software Engineering Intern *June 2017 – September 2017*

- Developed new meta-algorithm for batch mode active learning.
- Implemented active learning algorithms in production code using C++.
- Built experimentation suite for active learning in python.

BlueMountain Capital **New York, NY**
Risk Analyst *May 2014 – July 2015*

Cornerstone Research **Los Angeles, CA**
Senior Analyst *August 2011–April 2014*

Publications

- Li, L. and Talwalkar, A. *Random Search and Reproducibility for Neural Architecture Search.* UAI 2019.
- Li, L., Sparks, E., Jamieson, K., and Talwalkar, A. *Exploiting Reuse in Pipeline-Aware Hyperparameter Tuning.* NIPS 2018 Systems for Machine Learning Workshop.
- Li, L., Jamieson, K., Rostamizadeh, A., Gonina, E., Hardt, M., Recht, B., and Talwalkar, A. *Massively Parallel Hyperparameter Tuning.* NIPS 2018 Systems for Machine Learning Workshop.
- Li, L., Jamieson, K., DeSalvo, G., Rostamizadeh, A., and Talwalkar, A. *Hyperband: A Novel Bandit-Based Approach to Hyperparameter Optimization.* JMLR, 18(185):1–52, 2018
- Li, L., Jamieson, K., DeSalvo, G., Rostamizadeh, A., and Talwalkar, A. *Efficient Hyperparameter Optimization and Infinitely Many Armed Bandits.* ICLR 2017.

Talks and Panels

- *ICML AutoML Workshop Panel Discussion* — *June 2019*
- *Random Search and Reproducibility for NAS*
  - Stanford DAWN Lab — *April 2019*
  - Berkeley RISE Lab — *April 2019*
  - Determined AI — *April 2019*
  - MILA — *May 2019*
  - UCLA ScAi Lab — *June 2019*
  - ICML AutoML Workshop — *June 2019*
- *Parallelizing Hyperband for Large-Scale Tuning*
  - Bloomberg — *September 2017*
- *Learning Optimal Mixtures of Active Learning Methods*
  - Google Research Intern Seminar — *August 2017*
- *Hyperband: A Novel Bandit-Based Approach to Hyperparameter Optimization*
  - UCLA Electrical Engineering Annual Research Review — *February 2015*
  - Southern California Machine Learning Symposium — *November 2016*

Service

- CMU ML Blog, Founding Editor — *2018 – Present*
  - Author of post on distributed hyperparameter optimization.
- Conference and Workshop
  - NIPS Reviewer — *2019*
  - ICML AMTL Workshop Program Committee — *2019*
  - ICML AutoML Workshop Program Committee — *2019*
  - ICML Reviewer — *2019*
  - SysML Reviewer — *2018*
  - ICLR Volunteer — *2017*

Awards

- CMU MLD TA Award — *Fall 2018*
- ICLR Travel Award — *2017*
- Southern California Machine Learning Symposium Best Talk Award — *2016*
- Eugene V. Cota-Robles Fellowship, UCLA — *2015–2017*
- Wasserman Scholar, Caltech — *2009–2011*

Teaching

10-718: Data Analysis — **CMU**
Teaching Assistant — *Fall 2018*

Designed data analysis project to develop machine learning pipeline for single cell gene expression data.

10-403: Deep Reinforcement Learning and Control **CMU**
Teaching Assistant *Spring 2019*
Led recitation and designed homework assignments focused on implementing standard reinforcement learning algorithms.

Technical Skills

- **Programming Languages:** Python, R, C++, Scala, Matlab
- **Frameworks:** Tensorflow, Keras, PyTorch, Apache Spark