Gary Cheng

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Education

Ph.D. Electrical Engineering, Stanford University

September 2019 - Present GPA 4.0

Researching topics in Optimization and Statistics for Machine Learning supported by a 3-year *Professor Michael J. Flynn Stanford Graduate Fellowship.*

B.A. Computer Science, University of California, Berkeley

Highest Distinction (Summa Cum Laude) GPA 4.0

August 2015 - May 2019

Advised by Professors Laurent El Ghaoui, Jean Walrand, and Kannan Ramchandran. Coursework in machine learning, optimization, statistics, probability, algorithms, signal processing, analysis, algebra, linear algebra, etc.

Publications

Gary Cheng, Armin Askari, Kannan Ramchandran, and Laurent El Ghaoui. "Greedy Frank-Wolfe Algorithm for Exemplar Selection." Poster at *BayLearn 2018*.
https://arxiv.org/abs/1811.02702

Gary Cheng, Kabir Chandrasekher, and Jean Walrand. "Static and Dynamic Appointment Scheduling with Stochastic Gradient Descent." In *American Control Conference 2019*.
https://ieeexplore.ieee.org/document/8814666

Experience

Research Assistant, Stanford Information Systems Laboratory

September 2019 - Present

Fall quarter rotation with Professor Andrea Montanari researching matrix denoising methods. Winter quarter rotation with Professor David Tse studying problems related to adaptive sampling and multi-armed bandits.

Research Assistant, UC Berkeley BAIR Lab

January 2018 - May 2019

Developed an early stopping Frank-Wolfe Algorithm for the purpose of dataset summarization. Proved algorithm has a linear convergence rate. Designed, coded, and simulated all numerical experiments. Advised by Professors Laurent El Ghaoui and Kannan Ramchandran. First author paper on arXiv and presented poster at BayLearn 2018.

Research Assistant, UC Berkeley BLISS Lab

August 2016 - May 2019

Developed a novel dynamic appointment scheme and used stochastic gradient descent to find optimal appointment schedules with applications in hospital scheduling. Designed, coded, and simulated all numerical experiments. Advised by Professor Jean Walrand. Outstanding Presentation Award at GCURS 2017 and first author paper presented at American Control Conference 2019.

Software Development Intern, Amazon.com

May 2017 - August 2017

Full stack developer on the Forecasting team in Supply Chain Optimization. Implemented graph algorithms to give insight into the longest running components of forecasting calculations. Created new Java APIs and integrated them into a Ruby on Rails front-end.

Teaching

Teaching Assistant, University of California, Berkeley

EE 126, Probability and Random Processes. Spring 2018 & Spring 2019.

CS 170, Algorithms. Fall 2017.

CS 61B, Data Structures and Algorithms. Spring 2017.

Awards

Prof. Michael J. Flynn Stanford Graduate Research Fellowship. Spring 2019, Awarded by Stanford.

NSF Graduate Research Fellowship Honorable Mention. Spring 2019, Awarded by NSF.

UC Berkeley Campus Outstanding GSI Award. Spring 2019, Awarded by UC Berkeley.

Cal Alumni Association Leadership Award. Fall 2015, Awarded by UC Berkeley.