Shuang Liu

Contact Information

Department of Computer Science and Engineering
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Education

University of California, San Diego, Sept. 2016 - Present

- Ph.D student in Computer Science
- Research Advisor: Hao Su

Shanghai Jiao Tong University, Sept. 2012 - 2016

- B.S. in Computer Science
- Research Advisors: Karthik Sridharan, Zhihua Zhang, Xiaomin Chen

Research Interest

My research focus is on theoretical and applied machine learning. My current research focus is on Reinforcement Learning. My past research areas include Multi-armed Bandit and Generative Adversarial Networks.

Programming Skills

C, C++, Java, Python (Pytorch)

Research Experience

Research Assistant, Sept. 2016 - Sept. 2018

- Institute: University of California, San Diego
- Mentor: Kamalika Chaudhuri
- Topics: Machine Learning Theory, Generative Adversarial Learning, Large-Scale Optimal Transport, Adversarial Examples

Research Intern, Feb. 2016 - May 2016

- Institute: Yitu Technology
- Topics: Face detection and Face alignment

Research Assistant, July 2015 - Dec. 2015

- Institute: Cornell University
- Mentor: Karthik Sridharan
- Topics: Convex Analysis, Banach Space Geometry, Large-Scale Smooth Optimization, Online Learning, Bandit Convex Optimization, Partial Information Games

Independent Research, Jan. 2015 - June 2015

- Institute: Shanghai Jiao Tong University
- Mentor: Xiaomin Chen
- Topics: Szemerédi Regularity Lemma, Multi-Coloured Ramsey Numbers of Odd Cycles, Lines in Hypergraphs and Metric Spaces

Research Assistant, June 2014 - June 2015

- Institute: Shanghai Jiao Tong University
- Mentor: Zhihua Zhang
- Topics: Convex Optimization, Statistical Machine Learning, Stochastic Bandit Optimization, Distributed Bandit Optimization

Publications

Conferences

- Shuang Liu, Olivier Bousquet, Kamalika Chaudhuri
  Approximation and Convergence Properties of Generative Adversarial Learning
  NIPS 2017, Spotlight

Manuscripts

- Shuang Liu, Kamalika Chaudhuri
  The Inductive Bias of Restricted f-GANs
- Shuang Liu, Cheng Chen, Zhihua Zhang
  Regret vs. Communication: Distributed Stochastic Multi-Armed Bandits and Beyond

Teaching Experience

Teaching Assistant, Spring 2015

- Course: Advanced Compiler Design
- Institute: Shanghai Jiao Tong University
- Instructor: Yong Yu

Teaching Assistant, Spring 2018

- Course: Introduction to AI: A Statistical Approach
- Institute: University of California, San Diego
- Instructor: Kamalika Chaudhuri

Undergraduate Projects

C Compiler implemented in Java

- https://bitbucket.org/sadkangaroo/compiler2014

Nachos Operating System implemented in Java

- https://bitbucket.org/sadkangaroo/nachos2014

Unix-like Shell implemented in C

- https://github.com/sadkangaroo/shellproject

Simulated GPGPU implemented in C++

- https://bitbucket.org/sadkangaroo/my-gpgpu-sim

Database Back-End implemented in C

- https://bitbucket.org/sadkangaroo/shuangliudbspring15

Database Front-End implemented in MySQL and Java

- https://bitbucket.org/vegetable_h/database-project

Graduate Projects

Compiler Optimization through LLVM

- https://ucsd-pl.github.io/cse231/wi17/project.html

Awards

2018 Google PhD Fellowship

(39 recipients from North America, Europe and the Middle East)

SoCal Machine Learning Symposium 2017 - Amazon Best Poster Honorable Mention

2015 Google Excellence Scholarship

(58 Recipients in China)

ACM International Collegiate Programming Contest, Asia Regional

- Gold Medal in Shanghai, China, 2011
- Gold Medal in Fuzhou, China, 2011
- Gold Medal in Tianjin, China, 2012
- 4th Place in Hat Yai, Thailand, 2012
- Gold Medal in Changsha, China, 2013
- Silver Medal in Changchun, China, 2013

National Olympiad in Informatics, China

- Bronze Medal (National), 2011
- Gold Medal (Province), 2007, 2008, 2009, 2010

Services

Conference Reviewer: Neurips 2019, ICML 2019, ACML 2019, AISTATS 2019

Journal Reviewer: JMLR