

Dan Fu

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EDUCATION

Stanford University PhD in Computer Science	Stanford, CA September 2018-present
Harvard University AB/SM in Computer Science Cum laude, with Highest Honors in Computer Science	Cambridge, MA May 2018

RESEARCH EXPERIENCE

Stanford University , <i>Graduate Student Researcher</i>	2018-present
Harvard University , <i>Undergraduate Researcher</i>	2016-2018

INDUSTRY EXPERIENCE

Argo AI , <i>Research Intern</i>	Summer 2019
Google , <i>Software Engineering Intern</i>	Summer 2016, 2017
Tamr , <i>Field Engineering Intern</i>	Summer 2015
Interactive Intelligence , <i>Software Engineering Intern</i>	Summer 2014
DyKnow , <i>Development Intern</i>	Summer 2013

TEACHING EXPERIENCE

Teaching Fellow , <i>CS 152: Programming Languages</i> Harvard University	Spring 2018
Teaching Fellow , <i>CS 61: Systems Programming and Machine Organization</i> Harvard University	Fall 2015, 2016, 2017
Teaching Assistant , <i>Honors Pre-Calculus</i> Park Tudor High School	Spring 2014

HONORS

Department of Defense NDSEG Fellow	2019-current
Brown Institute for Media Innovation Magic Grant	2019-2020
Derek Bok Center Certificate of Distinction in Teaching	Fall 2017, Spring 2018
Presidential Scholar	2014
Siemens Research Competition National Runner-Up	2012

JOURNAL, CONFERENCE, AND WORKSHOP PUBLICATIONS

- [8] Trenton Chang, **Daniel Y. Fu**, Sharon Yixuan Li, Christopher Ré. Beyond the Pixels: Exploring the Effect of Video File Corruptions on Model Robustness. *ECCV 2020 Workshop on Adversarial Robustness in the Real World*, 2020.
- [7] **Daniel Y. Fu***, Mayee F. Chen*, Frederic Sala, Sarah M. Hooper, Kayvon Fatahalian, Christopher Ré. Fast and Three-rious: Speeding Up Weak Supervision with Triplet Methods. *International Conference on Machine Learning (ICML)*, 2020.
- [6] Frederic Sala, Paroma Varma, Jason Fries, **Daniel Y. Fu**, Shiori Sagawa, Saelig Khattar, Ashwini Ramamoorthy, Ke Xiao, Kayvon Fatahalian, James R. Priest, Christopher Ré. Multi-Resolution Weak Supervision for Sequential Data. *Neural Information Processing Systems (NeurIPS)*, 2019.
- [5] **Daniel Y. Fu**, Will Crichton, James Hong, Xinwei Yao, Haotian Zhang, Anh Truong, Avaniika Narayan, Maneesh Agrawala, Christopher Ré, Kayvon Fatahalian. Video Event Specification using Programmatic Composition. *AI Systems Workshop at SOSP*, 2019.
- [4] **Daniel Y. Fu**, Emily S. Wang, Peter M. Krafft, Barbara J. Grosz. Influencing Flock Formation in Low-Density Settings. *International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, 2018.
- [3] Abolhassan Behrouzvaziri, **Daniel Fu**, Patrick Tan, Yeonjoo Yoo, Maria V. Zaretskaia, Daniel E. Rusyniak, Yaroslav I. Molkov, Dmitry V. Zaretsky. Orexinergic Neurotransmission in Temperature Responses to Methamphetamine and Stress: Mathematical Modeling as a Data Assimilation Approach. *PLOS ONE*, May 20, 2015.
- [2] **Daniel Fu**, Patrick Tan, Alexey Kuznetsov, Yaroslav I. Molkov. Chaos and Robustness in a Single Family of Genetic Oscillatory Networks. *PLOS ONE*, March 25, 2014.
- [1] Yaroslav Molkov, **Daniel Fu**, Patrick Tan, Maria Zaretskaia, Dmitry Zaretsky. Orexinergic Neurotransmission in Temperature Responses to Methamphetamines. *Computational Neurosciences (CNS)*, 2013.

THESES

Design of Influencing Agents for Flocking in Low-Density Settings. Harvard College Undergraduate Honors Thesis, 2018.

UNPUBLISHED WORK AND PREPRINTS

James Hong, Will Crichton, Haotian Zhang, **Daniel Y. Fu**, Jacob Ritchie, Jeremy Barenholtz, Ben Hannel, Xinwei Yao, Michaela Murray, Geraldine Moriba, Maneesh Agrawala, Kayvon Fatahalian. Analyzing Who and What Appears in a Decade of US Cable TV News. *arXiv:2008.06007*, August 2020.

Mayee F. Chen*, **Daniel Y. Fu***, Frederic Sala, Sen Wu, Ravi Teja Mullapudi, Fait Poms, Kayvon Fatahalian, Christopher Ré. Train and You'll Miss It: Interactive Model Iteration with Weak Supervision and Pre-Trained Embeddings. *arXiv:2006.15168*, June 2020.

Daniel Y. Fu, Will Crichton, James Hong, Xinwei Yao, Haotian Zhang, Anh Truong, Avanika Narayan, Maneesh Agrawala, Christopher Ré, Kayvon Fatahalian. Recall: Specifying Video Events using Compositions of Spatiotemporal Labels. *arXiv:1910.02993*, October 2019.

Peter Kraft, Amos Waterland, **Daniel Y. Fu**, Anitha Gollamudi, Shai Szulanski, Margo Seltzer. Automatic Parallelization of Sequential Programs. *arXiv:1809.07684*, July 2018.

Richard Cho*, **Daniel Y. Fu***. Verifying Information Confidentiality under Query Optimization in HotCRP. *Prepared for CS 260r, Projects and Close Readings in Software Systems, 2017*.

Daniel Fu, Gabriel Guimaraes. Using Compression to Speed up Image Classification in Artificial Neural Networks. *Prepared for CS 222, Algorithms at the end of the Wire, 2016*.

Daniel Fu, Ross Rheingans-Yoo. Information-Provenance Clocks. *Prepared for CS 262, Intro to Distributed Computing, 2016*.

Daniel Fu, Ross Rheingans-Yoo. SimpleTimingPwn: Evading Information Flow Analysis via an Extremely Simple Timing Channel. *Prepared for CS 263, Systems Security, 2015*.

SOFTWARE PROJECTS

Ballroom Matchmaker: Automated Partnerships for Ballroom Dancing

<https://github.com/DanFu09/ballroom-matchmaker>

Ballroom Music Script for Runthroughs and Rounds <https://github.com/DanFu09/ballroom-runthroughs-script>