Dan Fu

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Education

HARVARD UNIVERSITY Cambridge, MA
AB/SM in Computer Science; GPA: 3.85; in-concentration GPA: 3.89 May 2018
Coursework in operating systems, machine learning, artificial intelligence, programming languages, systems security, distributed computing, data structures and algorithms, and probability
Presidential Scholar, 2014
Siemens Research Competition: National 2nd Place out of more than 1,500 submitted research projects

Relevant Experience

HARVARD UNIVERSITY, *Teaching Fellow, Systems Programming and Machine Organization* Fall 2015, 2016, 2017

- Lead sections of 30+ students and office hours, being careful to cater to the interests of both advanced students and novices
- Designed and built a problem set on synchronization - an early version of UberEATS, which did not exist at the time (2015)

GOOGLE, *Software Engineering Intern* June 2016-August 2016; May 2017-August 2017

- Built two machine learning models to predict flight arrival times based on live positional updates for Google Flights, resulting in improvements over official estimates (2017)
- Conducted research for a product group to augment and evaluate an in-house image classifier for a new use case (2016)
- Developed a custom newsfeed for the Google My Business Android app to drive increases in daily active users (2016)

TAMR, *Field Engineering Intern* June-August 2015

- Designed and implemented a fresh UX to handle a new use case for a POC with a potential client, leading to a major deal
- Developed mission-critical features for the successful launch of *Tamr on Google Cloud Platform*, a launch partnership that drives key marketing leads for both Tamr and Google Cloud Platform

INTERACTIVE INTELLIGENCE, *Software Engineering Intern* June-August 2014

- Designed and implemented both the frontend and the backend of the Interaction Speech Tuner, a tool that gives business users the ability to improve the performance of speech recognition applications

DYKNOW, *Development Intern* June-August 2013

- Integrated new web client with Drive and Dropbox, developed analytics features to monitor student participation

Research Papers

Multi-Agent Systems (AI)	**D. Y. Fu**, E. Wang, P. Krafft, B. J. Grosz, *Design of Influencing Agents to Aid Flock Formation in Low-Density Settings*, submitted to **AAMAS '18**
Systems	P. Kraft, A. Waterland, **D. Y. Fu**, A. Gollamudi, S. Szulanski, M. Seltzer, *Automatic Parallelization of Sequential Programs*, submitted to **SOSP '17, ASPLOS '18**
Formal Verification	R. Cho, **D. Y. Fu,** *Verifying Information Confidentiality under Query Optimization in HotCRP,* prepared for CS 260r, Projects and Close Readings in Software Systems, Spring 2017
Machine Learning	**D. Fu**, G. Guimaraes, *Using Compression to Speed up Image Classification in Artificial Neural Networks*, prepared for CS 222, Algorithms at the End of the Wire, Fall 2016
Distributed Systems	**D. Fu**, R. Rheingans-Yoo, *Information-Provenance Clocks*, prepared for CS262, Intro to Distributed Computing, Spring 2016
Systems Security	**D. Fu**, R. Rheingans-Yoo, *SimpleTimingPwn: Evading Information Flow Analysis via an Extremely Simple Timing Channel*, prepared for CS263, Systems Security, Fall 2015
Computational Biology	A. Behrouzvaziri, **D. Fu**, P. Tan, Y. Yoo, M.V. Zaretskaia, D.E. Rusyniak, Y.I. Molkov, D.V. Zaretsky, *Orexinergic Neurotransmission in Temperature Responses to Methamphetamine and Stress: Mathematical Modeling as a Data Assimilation Approach*, published May 20 2015 in **PLOS ONE**
Applied Math	**D. Fu**, P. Tan, Y.I. Molkov, A. Kuznetsov, *Chaos and Robustness in a Single Family of Genetic Oscillatory Networks*, published March 25 2014 in **PLOS ONE**

Technical Skills and Leadership

Programming Experience: C/C++, Java, Python, JavaScript, Android Development, Various Web Frameworks
Leadership Skills: Harvard Ballroom Dance Team, **President** '17-18, **Captain** '16-17, **CFO** '15-16; revamped training programs to increase retention as Captain, developed new revenue initiatives to eliminate $8,000/10% annual deficit as CFO