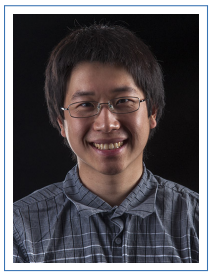

Samson Zhou

Curriculum Vitae

Background

Interests **Sublinear Algorithms**.

August 2018-Present	**Indiana University**, *Bloomington, IN.*, Postdoctoral Fellow, Host: Grigory Yaroslavtsev.
Summer 2018	**Purdue University**, *West Lafayette, IN.*, Postdoctoral Fellow, Host: Jeremiah Blocki.
2011–2018	**Purdue University**, *West Lafayette, IN.*, Doctor of Philosophy in Computer Science, Advisors: Greg Frederickson and Elena Grigorescu.
2006–2011	**Massachusetts Institute of Technology**, *Cambridge, MA.*, Master of Engineering in Computer Science, Advisor: Robert C. Berwick.
2006–2011	**Massachusetts Institute of Technology**, *Cambridge, MA.*, Bachelor of Science in Computer Science.
2006–2011	**Massachusetts Institute of Technology**, *Cambridge, MA.*, Bachelor of Science in Mathematics.
2004–2006	**Texas A&M University**, *College Station, TX.*
2002–2006	**A&M Consolidated High School**, *College Station, TX.*

125 N. Washington St. – Bloomington, IN 47408
(979)-492-8404 • *samsonzhou@gmail.com*
https://samsonzhou.github.io/

Publications

2018 **Bandwidth-Hard Functions: Reductions and Lower Bounds**,
Jeremiah Blocki, Ling Ren, Samson Zhou,
26th ACM Conference on Computer and Communications Security (CCS).

Nearly Optimal Distinct Elements and Heavy Hitters on Sliding Windows,
Vladimir Braverman, Elena Grigorescu, Harry Lang, David P. Woodruff, Samson Zhou,
21st International Conference on Approximation Algorithms for Combinatorial Optimization Problems (APPROX).

Structural Results on Matching Estimation with Applications to Streaming,
Marc Bury, Elena Grigorescu, Andrew McGregor, Morteza Monemizadeh, Chris Schwiegelshohn, Sofya Vorotnikova, Samson Zhou,
Algorithmica.

Relaxed Locally Correctable Codes in Computationally Bounded Channels,
Jeremiah Blocki, Venkata Gandikota, Elena Grigorescu, Samson Zhou,
45th International Colloquium on Automata, Languages, and Programming (ICALP), (Brief Announcement).

Periodicity in Data Streams with Wildcards,
Funda Ergün, Elena Grigorescu, Erfan Sadeqi Azer, Samson Zhou,
The 13th International Computer Science Symposium in Russia (CSR).

On the Computational Complexity of Minimal Cumulative Cost Graph Pebbling,
Jeremiah Blocki, Samson Zhou,
22nd International Conference, Financial Cryptography and Data Security (FC).

On the Economics of Offline Password Cracking,
Jeremiah Blocki, Ben Harsha, Samson Zhou,
39th IEEE Symposium on Security and Privacy (S&P).

2017 **Streaming for Aibohphobes: Longest Palindrome with Mismatches**,
Elena Grigorescu, Erfan Sadeqi Azer, Samson Zhou,
37th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS).

On the Depth-Robustness and Cumulative Pebbling Cost of Argon2i,
Jeremiah Blocki, Samson Zhou,
15th IACR Theory of Cryptography Conference (TCC).

Longest Alignment with Edits in Data Streams,
Elena Grigorescu, Erfan Sadeqi Azer, Samson Zhou,
54th Annual Conference on Communication, Control, and Computing (Allerton).

Streaming Periodicity with Mismatches,
Funda Ergün, Elena Grigorescu, Erfan Sadeqi Azer, Samson Zhou,
21st International Workshop on Randomization and Computation (RANDOM).

2016 **Nearly Optimal Sparse Group Testing**,
Venkata Gandikota, Elena Grigorescu, Sidharth Jaggi, Samson Zhou,
Proceedings of 54th Annual Conference on Communication, Control, and Computing (Allerton).

Theses

PhD Dissertation

Title *Approximating Properties of Data Streams*

Advisors Greg Frederickson, Professor Emeritus & Elena Grigorescu, Assistant Professor

May 2018

Masters Thesis

Title *Human and Artificial Intelligence Acquisition of Quantifiers*

Advisor Robert C. Berwick, MIT Professor of Computational Linguistics and Computer Science and Engineering

August 2011

Invited Talks

2018 **Recent Results in Hierarchical Clustering**, *November 28*, Center for Algorithms and Machine Learning, Indiana University.

Nearly Optimal Distinct Elements and Heavy Hitters, *August 22*, 21st International Workshop on Approximation Algorithms for Combinatorial Optimization Problems, APPROX.

Password Hashing and Graph Pebbling, *April 13*, Midwest Theory Day, Toyota Technological Institute at Chicago.

On the Computational Complexity of Minimal Cumulative Cost Graph Pebbling, *January 22*, Theory Seminar, Purdue University.

2017 **Pattern Matching over Noisy Data Streams**, *November 29*, Theory Seminar, Johns Hopkins University.

Streaming Periodicity with Mismatches, *August 16*, 21st International Workshop on Randomization and Computation, RANDOM.

Streaming for Aibohphobes: Longest Near-Palindrome under Hamming Distance, *February 10*, Theory Seminar, Indiana University Bloomington.

Streaming for Aibohphobes: Longest Near-Palindrome under Hamming Distance, *February 9*, Theory Seminar, Purdue University.

On the Computational Complexity of Minimal Cumulative Cost Graph Pebbling, *January 23*, Theory Seminar, Purdue University.

2016 **Recent Results in Group Testing**, *October 13*, Rutgers University.

Nearly Optimal Sparse Group Testing, *September 28*, 54th Annual Conference on Communication, Control, and Computing, Allerton.

Nearly Optimal Sparse Group Testing, *September 23*, Theory Seminar, Purdue University.

Structural Results on Matching Estimation with Applications to Streaming, *September 9*, Theory Seminar, Purdue University.

Posters

2018 **Nearly Optimal Distinct Elements and Heavy Hitters on Sliding Windows**, *June 14*, Workshop on Local Algorithms.

Password Hashing and Graph Pebbling, *February 21*, Purdue Sigma Xi Poster Competition.

2017 **Streaming Algorithms for Strings with Mismatches**, *September 8*, Purdue CS Student Research Showcase.

Streaming Algorithms for Strings with Mismatches, *June 22*, 49th Annual ACM Symposium on the Theory of Computing, STOC.

Awards

2018 Purdue Sigma Xi Research Award, Poster Competition Winner (Engineering)

2016 Graduate TA of the Year

2006 Siemens Award for Advanced Placement

University Interscholastic League, General Mathematics, Texas State Champion

Professional Service

Reviewer or External Reviewer for:

- International Conference on Artificial Intelligence and Statistics (AISTATS) 2019
- Innovations in Theoretical Computer Science (ITCS) 2019
- Financial Cryptography and Data Security (FC) 2019
- European Symposia on Algorithms (ESA) 2018
- International Conference on Approximation Algorithms for Combinatorial Optimization Problems (APPROX) 2018
- International Colloquium on Automata, Languages, and Programming (ICALP) 2018
- IEEE International Symposium on Information Theory (ISIT) 2018
- ACM Symposium on Theory of Computing (STOC) 2018, 2019
- Latin American Theoretical INformatics Symposium (LATIN) 2018
- ACM-SIAM Symposium on Discrete Algorithms (SODA) 2018, 2019
- ACM Symposium on Parallelism in Algorithms and Architectures (SPAA) 2017
- IEEE Symposium on Foundations of Computer Science (FOCS) 2017
- International Computer Science Symposium in Russia (CSR) 2017, 2019
- International Workshop on Randomization and Computation (RANDOM) 2016
- Algorithmica
- IEEE Transactions on Information Theory
- ACM Transactions on Algorithms
- SIAM Journal on Computing

August 2018-Present — **Organizer of the Convex Optimization Reading Group**, *Indiana University*.

August 2016-December 2017 — **Organizer of the Theoretical CS Reading Group**, *Purdue University*.

References

Greg Frederickson, *Advisor, Professor Emeritus*,
Department of Computer Science, Purdue University.
gnf@purdue.edu

Elena Grigorescu, *Advisor, Assistant Professor*,
Department of Computer Science, Purdue University.
egrigore@purdue.edu

Jeremiah Blocki, *Postdoctoral Host, Assistant Professor*,
Department of Computer Science, Purdue University.
jblocki@purdue.edu

Funda Ergün, *Professor*,
School of Informatics and Computing, Indiana University-Bloomington.
fergun@indiana.edu