FOTIOS ILIOPOULOS

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CITIZENSHIP

Greek. Permanent Resident in the USA (Green Card holder).

CURRENT POSITION

Senior Research Scientist, Google — May 2024 - present

PREVIOUS POSITIONS

Research Scientist, Google — August 2021 - May 2024

Postdoctoral Scholar, Institute for Advanced Study and Princeton University — Sep. 2019 - August 2021

EDUCATION

University of California Berkeley, USA — Sep. 2014 - August 2019
Doctor of Philosophy (PhD) in Computer Science
Advisor: Professor Alistair Sinclair

National Technical University of Athens (NTUA), Greece — Sep. 2008 - Sept. 2013
Diploma (5y) in Electrical and Computer Engineering

RESEARCH INTERESTS

Large Language Models, Efficient Deep Learning, Theoretical Computer Science.

PUBLICATIONS

1. "Gemini 2.5: Pushing the Frontier with Advanced Reasoning, Multimodality, Long Context, and Next Generation Agentic Capabilities", *technical report)*, July 2025.
2. "Linear Projections of Teacher Embeddings for Few-Class Distillation" (with N. Loo, W. Hu, E. Vee), *technical report)*, September. 2024.
3. "SLaM: Student-Label Mixing for Distillation with Unlabeled Examples" (with V. Kontonis, C. Baykal, K. Trihn, G. Menghani and E. Vee). *Proceedings of the 37th Conference on Neural Information Processing (NeurIPS)*, Nov. 2023.
4. "Robust Active Distillation (with C. Baykal, K. Trihn, G. Menghani and E. Vee)." *Proceedings of the 11th Conference on Learning Representations (ICLR)*, May 2023.
5. "Weighted distillation with unlabeled examples". *Proceedings of the 36th Conference on Neural Information Processing (NeurIPS)*, December 2022, pp. 39:1-39:16.
6. "Improved bounds for coloring locally sparse hypergraphs". *Proceedings of Approximation, Randomization, and Combinatorial Optimization (APPROX/RANDOM)*, August 2021, pp. 39:1-39:16.
7. "A new notion of commutativity for the algorithmic Lovász Local Lemma" (with D. G. Harris and V. Kolmogorov). *Proceedings of Approximation, Randomization, and Combinatorial Optimization (APPROX/RANDOM)*, August 2021, pp. 31:1-31:25.
8. "Group testing and local search: Is there a computational-statistical gap?" (with I. Zadik). *Proceedings of the 34th Annual Conference on Learning Theory (COLT)*, August 2021, pp. 2499-2551.
9. "Simple local computation algorithms for the Lovász Local Lemma" (with D. Achlioptas and T. Gouleakis). *Proceedings of the 32nd ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*, July 2020, pp. 1-10.
10. "Efficiently list-edge coloring multigraphs asymptotically optimally" (with A. Sinclair). *Random Stuctures & Algorithms, Volume 61, pp. 724-753, 2022. A preliminary version appeared in the proceedings of the 31st ACM-SIAM Symposium on Discrete Algorithms (SODA)*, January 2020, pp. 2319-2336.

11. "Beyond the Lovász Local Lemma: Point to set correlations and their algorithmic applications", (with D. Achlioptas and A. Sinclair). *Proceedings of the 60th IEEE Symposium on Foundations of Computer Science (FOCS)*, November 2019, pp. 725-744.
12. "A local lemma for focused stochastic algorithms" (with D. Achlioptas and V. Kolmogorov). *SIAM Journal on Computing (SICOMP), Volume 48(5):1583-602; 2019.*
13. "Commutative algorithms approximate the LLL-distribution". *Proceedings of Approximation, Randomization, and Combinatorial Optimization (APPROX/RANDOM)*, August 2018, pp. 44:1 - 44:20.
14. "Stochastic control via entropy compression" (with D. Achlioptas and N. Vlassis). *Proceedings of the 44th International Colloquium on Automata, Language and Programming (ICALP)*, July 2017, pp. 83:1 - 83:13.
15. "Focused stochastic local search and the Lovász Local Lemma" (with D. Achlioptas). *Proceedings of the 27th ACM-SIAM Symposium on Discrete Algorithms (SODA)*, January 2016, pp. 2024-2038.
16. "Random Walks that Find Perfect Objects and the Lovász Local Lemma" (with D. Achlioptas). *Journal of the ACM (J. ACM), Volume 63(3): 22:1-22:29; 2016. A preliminary version appeared in the proceedings of the 55th IEEE Annual Symposium on Foundations of Computer Science (FOCS)*, November 2014, pp. 494-503.

AWARDS

Christos Papakyriakopoulos award
For excellence in Mathematics in the school of Electrical and Computer Engineering for 2008-2009 (GPA 10/10) — December 2014

Nikos Kritikos Award
For excellence in Mathematics in the school of Electrical and Computer Engineering for 2008-2010 (GPA 10/10) — December 2011

Bronze Medal — March 2010
Southeastern European Mathematical Olympiad for University Students
Member of the Greek National Team

Silver Medal — February 2008
Greek National Mathematical Olympiad

3rd Prize — January 2008
68 Panhellenic Contest in Mathematics

PROGRAMMING

- Programming: Tensorflow, Pytorch, Python, C++, C, SQL, Matlab.

TEACHING EXPERIENCE

Teaching Assistant

- CS170: *Efficient Algorithms and Intractable Problems, UC Berkeley* (Spring 2019)
- CS70: *Discrete Mathematics and Probability Theory, UC Berkeley* (Spring 2018)
- CS174: *Combinatorics and Discrete Probability, UC Berkeley* (Spring 2017)
- *Discrete Mathematics for Computer Science, National Technical University of Athens* (Spring 2011)