Alek Westover
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Education

- MIT: studying math and computer science. 2022-present.
- MIT PRIMES: research program for highschool students
  Mentor: William Kuszmaul
- Canada/USA Mathcamp

Awards

- Regeneron Science Talent Search. (7th place in USA, "the nation's oldest and most prestigious science and math competition for high school seniors")
- MSEF (Massachusetts Science Engineering Fair). (Second Place Award)
- 2019 Yau Science Award for Computer Science: Bronze Medal

Work History

- TA for Math-E 23a/c (Linear Algebra, Real Analysis, Multivariable Calculus) at Harvard
- Intern as a software engineer at a healthcare AI startup (Beacon Biosignals)
- Private tutor for math / science
- Paid Theoretical Computer Science Internship at MIT CSAIL

Publications

- William Kuszmaul and Alek Westover. The Variable-Processor Cup Game. In 12th Innovations in *Theoretical Computer Science Conference* (**ITCS**), 2021. 10.4230/LIPIcs.ITCS.2021.16.
- William Kuszmaul and Alek Westover. Brief Announcement: Cache-Efficient Parallel-Partition Algorithms using Exclusive-Read-and-Write Memory. In *32nd ACM Symposium on Parallelism in Algorithms and Architectures* (**SPAA**), 551-553, 2020. doi.org/10.1145/3350755.3400234
  Full version: arXiv:2004.12532
  Code: github.com/awestover/Parallel-Partition
  Visualization: parallelpartition.surge.sh/

Skills

- Programming:
  - data science (python / julia)
  - full-stack web development (python/javascript)
  - High performance code (C++)
- Read and worked solutions to many exercises in "Algorithms" by Jeff Erickson (topics: dynamic programming, greedy algorithms, graph algorithms (eg traversal algorithms, shortest paths, APSP, MST, max flow / mincut), complexity theory)