

Aleksandar Krastev

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• <https://alexalex.xyz>

• <https://github.com/Alaxe>

Education

Massachusetts Institute of Technology

EXPECTED JUN 2023

- Pursuing M.Eng. and B.S. in Computer Science GPA 5.0/5.0
- Past courses: Computer System Architecture, Secure Hardware Design, Advanced Data Structures, Distributed Systems, Theory of Computation, Software Construction, Algorithms for Graphs and Matrices.

Work Experience

Amazon.com / Software Development Engineering Intern

JUN 2021–AUG 2021

- Improved the Amazon Halo mobile app using React Native.

QuantCo / Software Engineering Intern

JUN 2020–AUG 2020

- Migrated Random Forests model training and validation from R to Python using rpy2.

Publications

CraterLake: A Hardware Accelerator for Efficient Unbounded Computation on Encrypted Data N.Samardzic, A. Feldmann, **A. Krastev**, N. Manohar, N. Genise, S. Devadas, K. Eldefrawy, C. Peikert, D. Sanchez, *49th International Symposium in Computer Architecture (ISCA-48)*, June 2022

F1: A Fast and Programmable Accelerator for Fully Homomorphic Encryption A. Feldmann, N. Samardzic, **A. Krastev**, S. Devadas, R. Dreslinski, C. Peikert, D. Sanchez, *54th annual IEEE/ACM international symposium on Microarchitecture (MICRO-54)*, October 2021 (IEEE Micro's Top Pick for 2022)

Independent Projects

Nitwit Compiler for a made-up programming language (C++)

retropq Priority queue that supports changing past operations in $O(\log n)$ (Python)

Gemini Co-op puzzle platformer (JavaScript)

Stealth Top-down 2D game (JavaScript)

Awards

International Olympiad in Informatics Gold (2018), Silver (2016, 2019)

Balkan Olympiad in Informatics Gold (2018), Silver (2016)

European Physics Olympiad Silver (2019)