Kevin Qian

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Education & Select Coursework

Massachusetts Institute of Technology Cambridge, MA
M.Eng. in Electrical Engineering & Computer Science; GPA: 5.0/5.0 2023–2024

B.S. in Electrical Engineering & Computer Science; GPA: 4.9/5.0 2019–2023

- *Graduate Coursework*: Algorithms, Probability, Inference, Statistical Learning Theory, Systems Security
- *Undergraduate Coursework*: Performance Engineering, Dynamic Computer Languages, Computational Photography, Computer Graphics, Operating Systems, FPGA, Signal Processing, Computation Structures, Machine Learning, Embedded Systems

Work Experience

MIT 6.4400 Computer Graphics Cambridge, MA
Teaching Assistant Fall 2023

MIT CSAIL - Visual Computing Languages & Systems Group Cambridge, MA
Research Assistant (Advisors: Yuka Ikarashi and Professor Jonathan Ragan-Kelley) 2021–2023
Developing EXO, a domain specific scheduling language that facilitates development of HPC libraries by externalizing target-specific code generation and compiler passes, giving the user safe, fine-grained control over algorithm optimization.

Jane Street Capital New York, NY
Software Engineering Intern, Core Services Summer 2023
TBD

Jane Street Capital New York, NY
Software Engineering Intern, Core Services and Post Trade Teams Summer 2022
Integrated hybrid remote work schedules into internal tool. Code-generated an OCaml library for connecting to Workday.

D.E. Shaw & Co. New York, NY
Quantitative Developer Intern, Options Team Summer 2021
Modeled options implied volatility surfaces using autoencoders to predict day-to-day implied volatility change.

Meta Menlo Park, CA
Software Engineering Intern, Growth Notifications Team Spring 2021
Improved user conversion rate of FB notifications by developing new signals, modifying existing signals, and A/B testing.

MIT CSAIL - Madry Lab Cambridge, MA
Research Assistant (Advisors: Kai Xiao and Professor Aleksander Madry) 2020–2021
Cotrained Resnet models to combine simpler priors, trained exclusively on either an image's background or foreground.

University of Maryland - Joint Quantum Institute College Park, MD
Research Assistant (Advisors: Zachary Eldredge and Professor Alexey Gorshkov) 2018–2019
Invented an optimal method to measure analytic functions of field parameters by entangling sensors (see publications).

Publications/Patents

Heisenberg-Scaling Measurement Protocol for Analytic Functions with Quantum Sensor Networks
K. Qian, *Z. Eldredge, W. Ge, G. Pagano, C. Monroe, J. V. Porto, A. V. Gorshkov*
Physical Review A 100, 042304 (2019), arXiv:1901.09042 [quant-ph].

- U.S. Patent 11,562,049 (filed Nov 8, 2019, issued Jan 24, 2023) awarded based on publication.

Highlighted Awards

Regeneron Science Talent Search (STS) Finalist: Top 40 nationwide 2019
Intel International Science and Engineering Fair (ISEF): Second Place Grand Award 2019
USA International Math Olympiad (IMO) Selection Group Qualifier: Top 30 nationwide 2018, 2019
USA Math Olympiad Program (MOP) Qualifier: Top 60 nationwide 2016, 2017
USA Computing Olympiad (USACO) Finalist: Top 26 nationwide 2017

Programming Languages

C, C++, Python, OCaml, Java, JavaScript, Assembly, SystemVerilog, Julia