Milan Lustig

Computer Systems Researcher

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in Milan Lustig green726 Milan Lustig

Education

Harvard University 2025 - 2029 Computer Science Bachelor of Science

Cold Spring Harbor High School

September 2021 - June 2025

4.0uw/4.29w GPA, 1590 SAT, Valedictorian, Varsity Swim Captain, FRC Robotics Co-President

Experience

Stony Brook University COMPAS Lab

May 2024 - Present

Research Assistant, Simons Fellow

Full time paid Research Assistant employed by SUNY; Simons Fellow (<4% acceptance rate); led and directed project incorporating several graduate students working to develop computer systems for ML accelerators; continued collaboration with IBM researchers

University of Michigan Future of Programming Lab

February 2022 - Present

Lab Member

Developed computer science education software used in multiple university courses; collaborated with graduate students on PhD-thesis projects; youngest lab member

New York University Martiniani Lab

August 2023 - Sep 2024

Lab Member

Researched computational physics algorithms; studied graduate-level theoretical physics; built high performance parallel Rust simulation software for use in multiple physics research labs

Awards

Regeneron STS Top Jan 2025 300 Scholar	ISEF 3rd Place May 2024 Grand Award	Presidential April 2025 Scholars Semi-	Misc Government 2022-2025 Awards
Society for Science	Society for Science	Finalist	US Congressional App
Top 300 out of 2400+ national applicants;	3rd Place out of 1,700 international finalists,	President of United States	Challenge Winner, NY State Commendation (4x), Suffolk
"America's oldest and most prestigious research competition"	175,000+ global participants; solo compilers research	600 finalists out of 3.9 million students nationally	County Commendation (5x)

Projects

MLISA May 2024 - Present Swo Wants Options Jan 2022 - May 2024 **EraTICKate** April 2023 - August 2024 CSH HS SBU & IBM Independent https://github.com/green726/SWO

Led the development of an MLIR/LLVMbased Torch ML compiler; modified PyTorch, MLIR, LLVM internals; designed novel Instruction Set Architecture (ISA) for ML applications

Researched and built a novel compiled programming language in C#; custom parser frontend; LLVM backend

Founder & president of \$50k+ grantwinning MIT InvenTeam; developed modern targeted tick mitigation technologies; collaborated with government officials

Publications

A Configurable Compiled Language With Integrated Transpilation

December 2023

SSRN

https://dx.doi.org/10.2139/ssrn.4661607

Skills

Programming Languages Tools Research C++, Java, C#, TS/JS, C, Rust, Python, Compilers, Computer Architecutre, PL LLVM, MLIR, ARM, RISCV, Menhir, Reason, OCAML, Kotlin Theory, Computational Simulation PyTorch, Git, LaTeX, Linux