

Noah Kochavi

Phone: (484) 470-3808 • Email: noahkochavi0@gmail.com • LinkedIn: [linkedin.com/in/noah-kochavi-43a347250/](https://www.linkedin.com/in/noah-kochavi-43a347250/)

Computer Engineering student at Pitt with 4+ internships and many projects spanning embedded systems, HPC, and SWE. Driven by the gap between hardware potential and real-world software performance. Documents deep-dive performance investigations at superspruce.org, including a series benchmarking raw counting speed down to hand-written assembly, with upcoming posts utilizing CPU vector extensions, multicore CPUs, and GPUs. Looking for roles in HPC.

Education

University of Pittsburgh

Pittsburgh, PA

Bachelor of Science in Computer Engineering

Expected graduation date: December 2026

Minors: Electrical Engineering, Mathematics | Cumulative GPA: 3.93

Courses taken: Machine Learning, Junior Design, Linear Controls, The Art of Making, Parallel Systems, VLSI

Leadership: Recording Secretary, IEEE Eta Kappa Nu | Former President, Math Club at Pitt | Member, Tau Beta Pi

Work Experience

Alstom

Pittsburgh, PA

Software Test Intern

May-Aug 2026

- Created and documented nearly 500 NUnit tests to bolster security and quality in a C# train simulator program
- Repaired a GitLab CI/CD pipeline to automate building, testing, and deployment of a .NET codebase with Docker
- Took initiative to add an automated test regression report in the pipeline to find regressions in under 10 seconds
- Utilized AI agents with GitHub Copilot to 3x development velocity while retaining code and documentation quality

Ansys

Canonsburg, PA

Intern | Software Engineering Co-op

Aug-Dec 2025

- Completed 25 PRs throughout their full lifecycle, including a tangible feature to remove hatch lines on slice planes
- Discovered, documented, and fixed 4 bugs, including a high-priority startup crash
- Took initiative to improve performance tests by logging at the C++ level and posting to a performance database
- Selected to represent Ansys at a CMU career fair recruiting internships, co-op students, and full-time employees

Intern | Software Engineering Co-op

Aug-Dec 2024

- Collaboratively developed the large production C++ code base of the post-processing and graphics for Ansys Mechanical (a Finite Element Analysis (FEA) tool) in a team of 16 people with agile methodologies

SHREC – Parallel Programming

University of Pittsburgh

Student Undergraduate Researcher (SURG)

May-July 2025

- Constructed a bicubic image upscaling algorithm in plain C, OpenMP, and CUDA, with a 6x speedup over serial
- Utilized a bash script to automate gathering data for benchmarking, both locally and on a remote supercomputer
- Performed an analysis of where the bottlenecks lie to provide suggestions on how to further improve performance
- Invited by Dr. Alan George, SHREC's director, for continued graduate research within the lab

Skills

- **Languages:** C, C++, C#, CUDA, Python, CI/CD, x86/ARM/RISC-V Assembly, OpenMP, MPI
- **Systems and HW:** Embedded Systems, Linux, FPGA, RISC-V, Microcontrollers, Soldering, PCB Design
- **Tools:** Agentic AI, Git, Docker, Bash, PowerShell, Nvidia Nsight

Projects

Genetic Algorithm Action Sequence Optimizer

2026

- Designed and implemented a genetic algorithm in pure C to optimize sequences of discrete control actions, with each gene encoding an action and repetition count (1-255)
- Replaced my neural-network-based policy model and pivoted after empirical evaluation showed poor scalability
- Achieved equivalent performance using orders of magnitude fewer simulated agents, 97% less memory, and 2-3x faster execution per agent compared to the neural network approach