# Kian Mahmoodi

Undergraduate Student
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## RESEARCH INTERESTS

Memory hierarchy design for modern AI systems; heterogeneous memory architectures; accelerator–memory co-design; emerging memory technologies; data-movement–efficient architectures.

## EDUCATION

**Cornell University**, Ithaca, NY August 2022 — May 2026
Bachelors of Science in Electrical and Computer Engineering
*Coursework*: High Level Synthesis, Data Center Architecture, Microelectronics, Computer Architecture, OOP/Data Structures, Applied High-Performance Computing, Embedded Systems, Signal and Systems, Digital Logic, Circuits.

## ACADEMIC EXPERIENCE

**Alian Research Group (ARG)** Advisor: Professor Mohammad Alian May 2025 — Present

- Leading ongoing research on redefining the memory hierarchy.

**SciFi Lab** Advisor: Professor Cheng Zhang May 2024 — May 2025

- Lead hardware prototyping across multiple projects, including designing, fabricating, and integrating custom PCBs; embedding and programming microcontrollers for real-time data acquisition and streaming; and developing complete data processing pipelines.
- Led publication of research accepted to a leading HCI conference, overseeing experimental design, data collection, and manuscript preparation.

## PUBLICATIONS AND PRESENTATIONS

[1] J. Kim, M. Nouri, E. Glukhov, **K. Mahmoodi**, J. Kim, J. Sim, H. Kim, M. Alian, "Title withheld for double-blind review," submitted to the ACM/IEEE International Symposium on Computer Architecture (ISCA) 2026. Under review.
[2] **K. Mahmoodi**, M. Alian, "High Bandwidth Flash: High Capacity Addition To Memory," 2025. Presented at the ACE Center for Evolvable Computing Annual and Liaison Meeting.
[3] **K. Mahmoodi***, Y. Xie*, T. Gemicioglu*, C.-J. Lee, J. Kim, and C. Zhang, "EchoForce: Continuous Grip Force Estimation from Skin Deformation Using Active Acoustic Sensing on a Wristband," in Proceedings of the 2025 ACM International Symposium on Wearable Computers, in ISWC '25. doi: 10.1145/3715071.3750405.

## HONORS AND AWARDS

- Cornell Engineering Undergraduate Research Grant ($6,700), Summer 2025
- Computing Research Association (CRA) Outstanding Undergraduate Researcher, Honorable Mention, 2025
- Intelligent Wearables with Acoustic Sensing Research Experiences for Undergraduates (REU), Cornell University ($5,600), Summer 2024
- Cornell College of Engineering Dean's List, Spring 2023–Present

## TEACHING ASSISTANT

- ECE 6960: Data Center Architecture
- ECE 4750: Computer Architecture
- CS 1110: Introduction to Computing Using Python
- ENG 1050: Engineering Seminar
- INFO 4120: Ubiquitous Computing (volunteer)