Stanford

Sara Achour

Assistant Professor of Computer Science and of Electrical Engineering

Bio

ACADEMIC APPOINTMENTS

- Assistant Professor, Computer Science
- Assistant Professor, Electrical Engineering

PROGRAM AFFILIATIONS

- Stanford SystemX Alliance

PROFESSIONAL EDUCATION

- PhD, Massachusetts Institute of Technology , Computer Science (2021)

LINKS

- Personal Site: https://stanford.edu/~sachour

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am an Assistant Professor jointly appointed to both the Computer Science and the Electrical Engineering Departments at Stanford University. My research focuses on new techniques and tools, specifically new programming languages, compilers, and runtime systems, that enable end-users to more easily develop computations that exploit the potential of emerging computing platforms that exhibit analog behaviors.

Teaching

COURSES

2023-24

- Introduction to Essential Software Systems and Tools: CS 104 (Win)
- Software Engineering: CS 295 (Win)
- Software Techniques for Emerging Hardware Platforms: CS 349H, EE 292Y (Aut)

2022-23

- Software Engineering: CS 295 (Win)
- Software Techniques for Emerging Hardware Platforms: CS 349H, EE 292Y (Aut)

2021-22

- Software Engineering: CS 295 (Win)

- Software Techniques for Emergent Hardware Platforms: CS 349H, EE 292Y (Aut)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

Ritvik Sharma, Yu-Neng Wang

Master's Program Advisor

Isaac Aguilar, Jennie Chung, Jonathan Coronado, Varun Desai, Zhoujie Ding, Jacob Householder, Yumeng Lu, Shreya Parjan, Emily Park, Tom Shen, Andrew Woen, Yifan Yang

Doctoral (Program)

Pu (Luke) Yi

Publications

PUBLICATIONS

- **Hardware-Aware Static Optimization of Hyperdimensional Computations** *PROCEEDINGS OF THE ACM ON PROGRAMMING LANGUAGES-PACMPL*
  Yi, P., Achour, S.
  2023; 7 (OOPSLA)

- **PBA: Percentile-Based Level Allocation for Multiple-Bits-Per-Cell RRAM**
  Wei, A., Levy, A., Yi, P., Radway, R. M., Raina, P., Mitra, S., Achour, S., IEEE
  IEEE.2023