HARSH SHARMA

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EDUCATION

Ph.D. Candidate, Computer Engineering, 3.93 GPA **2021–Present**

Washington State University *Pullman, Washington*

Courses: • Advanced Computer Architecture • Machine Learning • Computational Genomics • Neural Network Design & Analysis • SoC Design and Test • VLSI Systems Design

Bachelor of Engineering, Electronics and Communication Engineering **2017–2021**

NSIT, Delhi University *New Delhi, India*

Department Ranker (Top 5%)

Coursework: • Artificial Intelligence • Microprocessors • Operating Systems • Project Management

EXPERIENCE

Machine Learning Research Intern **June 2020–December 2020**

Lenskart.com *New Delhi, India*

Developed AR tools with vision model to boost online sales by 35% during COVID19 Pandemic.

SELECTED PUBLICATIONS

1. **H. Sharma**, L. Pfromm, J. Doppa, U. Y. Ogras, A. Kalyanraman, P. Pande. Network-on-Interposer Design for CNN Inferencing in Presence of Defects. *ICCAD*, 2023. Under Review
2. [**Best Paper Candidate**] **H. Sharma**, L. Pfromm, R. Topaloglu, J. Doppa, U. Y. Ogras, A. Kalyanraman, P. Pande. Florets for Chiplets: Data Flow-aware High-Performance and Energy-efficient Network-on-Interposer for CNN Inference Tasks. *ESWEEK*, 2023.
3. **H. Sharma**, S. K. Mandal, J. Doppa, U. Y. Ogras, P. Pande. Achieving Datacenter-scale Performance through Chiplet-based Manycore Architectures. *DATE*, 2023.
4. [**Best Paper Award**] **H. Sharma**, S. K. Mandal, J. Doppa, U. Y. Ogras, P. Pande. SWAP: A Server-Scale Communication-Aware Chiplet-Based Manycore PIM Accelerator. *ESWEEK*, 2022.
5. **H. Sharma**, D. Gadre, S. Gadre, S. Srivastava. Science on a stick: An experimental and demonstration platform for learning several physical principles. *Am. Journal of Phys.*, 2022.

AWARDS AND HONORS

- National Science Foundation (NSF) Travel Grant, 2023
- **Best Paper Candidate** at ESWEEK(Hamburg, Germany), 2023
- **Best Paper Award** at ESWEEK(Phoenix/Shanghai), 2022 [†]
- DAC Richard Newton Young Fellow, 2022

SELECTED PROFESSIONAL AND OUTREACH ACTIVITIES

Conferences and Invited Talks

- SWAP: A Server-scale Communication aware Chiplet-based PIM Accelerator at ESWEEK 2022.
- Achieving Datacenter-scale Performance through Chiplet-based Manycore Architectures at DATE 2023.
- Florets for Chiplets: Data Flow-aware High-Performance & Energy-efficient Network-on-Interposer for CNN Inference Tasks at Hamburg, Germany; ESWEEK-2023.
- Talk on *AI-Driven Design & Optimization of Chiplet-Systems for Server-Scale Applications* Pullman-2023.
- Talk on *AI-Driven Design & Optimization strategies for more Moore* at NSIT Delhi (Virtual)-2023.
- Talk on *Accelerating the Future of Electronics* at Boston University (Virtual)-2023. [‡]

Reviewer

- ESWEEK 2022-Present, ICCAD 2023-Present, DAC 2022-Present, DATE 2022-Present

SKILLS

- **Programming Languages.** Python, Bash, C/C++, HTML/CSS, LaTeX, MATLAB, JavaScript
- **Tools/Packages.** Git, SQL, PyTorch, TensorFlow, Python data science tools, Arduino, TI MSP430G253

[†] https://school.eecs.wsu.edu/2022/10/14/cases-best-paper-award/

[‡] Based on https://medium.com/@harshari/accelerating-the-future-of-electronics-e23cc42d9d39