Pranav Dangi

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EDUCATION

- **National University of Singapore (NUS)** — Singapore
  PhD Student, School of Computing — 2024 - 2028

- **Birla Institute of Technology and Science, Pilani (BITS Pilani)** — Pilani, India
  B.E. (Hons.) Electrical and Electronics Engineering — 2019 - 2023

  Thesis: Addressing Sparsity through Algorithms, Memory and Compute

PUBLICATIONS (*EQUAL CONTRIBUTION) (CHRONOLOGICAL ORDER)

- **Pranav Dangi**, Bai Zhenyu, Rohan Juneja, Zhaoying Li, Tulika Mitra. "A Data-Driven Dynamic Execution Orchestration Architecture", **Under Review**

- Zhaoying Li*, **Pranav Dangi***, Chenyang Yin, Thilini Kaushalya Bandara, Rohan Juneja, Cheng Tan, Tulika Mitra. "Enhancing CGRA Efficiency through Aligned Compute and Communication Provisioning", **ASPLOS'25**

- **Pranav Dangi***, Thilini Kaushalya Bandara*, Saeideh Sheikhpour, Tulika Mitra, Lieven Eeckhout. "Sustainable Hardware Specialization", **ICCAD'24**

- **Pranav Dangi**, Bai Zhenyu, Rohan Juneja, Dhananjaya Wijerathne, Tulika Mitra. "A Generalized Accelerator for Variably Sparse Matrix Computations in ML", **PACT'24**

- Bai Zhenyu, Wu Dan, **Pranav Dangi**, Dhananjaya Wijerathne, Pavan Miriyala, Tulika Mitra. "Irregular Data-aware dynamic scheduling of workloads on heterogeneous systems", **Under Review**

- Bai Zhenyu, **Pranav Dangi**, Huize Li, Tulika Mitra. "Scalable, Efficient Window-Attention Based Transformer Acceleration", **DAC'24**

GRANTS, SCHOLARSHIPS AND ACHIEVEMENTS

- Singapore President's Graduate Fellowship (Highest Fellowship for Academic and Research Achievements)

- NUS Research Incentive Award (Award for Outstanding Research Potential)

- Travel Grant: ASPLOS 2025, DAC 2024

- BITS IPCD Undergraduate Thesis Award (Award for Outstanding Undergraduate Research)

- Google Summer of Code Fellowship, 2021

- BITS Institute Dean's MCN Scholarship, 2019-20, 2021-23 (Top 5% of the Department)

RESEARCH EXPERIENCE

- **National University of Singapore (NUS)** — Singapore
  Research Assistant, School Of Computing — Jan 2023 - Aug 2024
- **TCS Research and Innovation Labs** — Mumbai/Remote
  Research Intern — Aug 2022 - Dec 2022
- **Oysters Lab, EEE Department** — BITS Pilani
  Research Assistant — Jan 2022 - Nov 2022

INDUSTRY & OPEN-SOURCE EXPERIENCE

- **Intel** — Bangalore
  Intern — Jun 2022 - Aug 2022
- **Google Summer of Code - RTEMS** — Remote
  Fellow — May 2021 - Aug 2021
- **Nihon Communications** — Remote
  Intern — May 2020 - July 2020

EXTRA CURRICULARS

- **Teaching Assistant** — Singapore
  GEI1000 Computational Thinking — Sept 2024 – Dec 2024
- **Undergraduate Teaching Assistant** — Pilani, India
  CS F342 Computer Architecture; EEE F313 Analog, Digital VLSI Design — Jan 2022 – Dec 2022
- **StuCCAn (Head of Cultural Fest)** — Pilani, India
  Department of Controls — Aug 2022 – Dec 2022