

Bhargav Reddy Godala

Curriculum Vitae

CONTACT INFORMATION

Department of Computer Science
Princeton University
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Princeton, NJ, USA 08540

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EDUCATION

Princeton University, Princeton, NJ
Ph.D. in Computer Science, in progress
Advisor: Prof. David I. August

Indian Institute of Technology, Hyderabad, India
B.Tech in Computer Science, Honors, Aug 2015
Advisor: Prof. Ramakrishna Upadrasta

EXPERIENCE

Research Assistant, September 2018 to Present
Liberty Research Group, Department of Computer Science, Princeton University, Princeton, NJ
Perform research in compilers and architecture for performance and security.

Research Intern (Part-time), October 2023 to March 2024
Intel Labs, Intel, Santa Clara, US
CPU Front-end microarchitecture research

Research Intern, May 2022 to November 2022
Intel Labs, Intel, Santa Clara, US
CPU Front-end microarchitecture research

Research Intern, June 2020 to December 2020
AMD Research, AMD Research, Santa Clara, US
Programming Model for Processing in Memory

Software Engineer 2, June 2015 to June 2018
CPU Performance Compiler, AMD, Bangalore, India
Improve performance of AOCC Compiler

Intern, May 2014 to July 2014
Multimedia, Qualcomm, Hyderabad, India
Optimize MPEG4 encoders using NEON intrinsics.

RECOGNITION

- Princeton University Graduate Fellowship, Princeton University, 2018-2019
- Merit Cum Means Scholarship, IIT Hyderabad, 2011-2015

TEACHING

- COS 375 - Computer Architecture and Organization
- COS 126 - Computer Science: An Interdisciplinary Approach
- CS 2040 - Principles of Programming Languages
- ID 1021 - Introduction to Computer Programming

PUBLICATIONS

REFEREED CONFERENCE PUBLICATIONS

- [1] Ishita Chaturvedi, Bhargav Reddy Godala, Yucan Wu, Ziyang Xu, Konstantinos Iliakis, Panagiotis-Eleftherios Eleftherakis, Sotirios Xydis, Dimitrios Soudris, Tyler Sorensen, Simone Campanoni, Tor M. Aamodt, and David I. August, “GhOST: a GPU Out-of-Order Scheduling Technique for Stall Reduction,” to appear in *Proceedings of the 51st International Symposium on Computer Architecture (ISCA)*, June 2024.
Awarded all top ACM Reproducibility Badges offered by the Artifact Evaluation Committee.
- [2] Bhargav Reddy Godala, Sankara Prasad Ramesh, Gilles A. Pokam, Jared Stark, Andre Sez nec, Dean Tullsen, and David I. August, “PDIP: Priority Directed Instruction Prefetching,” in *Proceedings of the 29th ACM International Conference on Architectural Support for Programming Languages and Operating System (ASPLOS)*, April 2024.
Awarded Best Paper (one of six) out of 922 submissions. Awarded all top ACM Reproducibility Badges offered by the Artifact Evaluation Committee.
- [3] Nayana Prasad Nagendra*, Bhargav Reddy Godala*, Ishita Chaturvedi, Atmn Patel, Svilen Kanev, Tipp Moseley, Jared Stark, Gilles A. Pokam, Simone Campanoni, and David I. August, “EMISSARY: Enhanced Miss Awareness Replacement Policy For L2 Instruction Caching,” in *Proceedings of the 50th International Symposium on Computer Architecture (ISCA)*, June 2023.
(*Co-first authors)

REFEREED WORKSHOP PUBLICATIONS

- [4] Bhargav Reddy Godala, Nayana Prasad Nagendra, Ishita Chaturvedi, Simone Campanoni, and David I. August, “Modern Front-end Support in gem5,” in *ISCA 2023: The gem5 Workshop*, June 2023.
- [5] Bhargav Reddy Godala, Ishita Chaturvedi, Yucan Wu, Simone Campanoni, and David I. August, “QPoints: QEMU to gem5 ARM Full System Checkpointing,” in *ISCA 2023: The gem5 Workshop*, June 2023.