VARUN CHANDRASHEKHAR GOHIL

Email : varuncgohil@gmail.com   **Website** : varungohil.github.io
Phone Number : 607-405-9483   **GitHub ID** : varungohil

EDUCATION

Massachusetts Institute of Technology   September 2022 - Present
PhD, Electrical Engineering and Computer Science

Indian Institute of Technology Gandhinagar   July 2016 - July 2020
B.Tech, Computer Science and Engineering   CPI: 9.04/10

EXPERIENCE

Research Intern, Google   June 2023 - August 2023
Hosts : Sundar Dev, David Lo, Gaurang Upasani

Research Intern, Google   June 2022 - August 2022
Hosts : Sundar Dev, David Lo

Graduate Researcher, Cornell University   August 2021 - May 2022
Advisor : Prof. Christina Delimitrou

Research Fellow, Ashoka University   August 2020 - July 2021
Advisor : Prof. Manu Awasthi

Visiting Scholar, University of Utah   May 2019 - July 2019
Advisor : Prof. Rajeev Balasubramonian

Summer Research Intern, IIT Gandhinagar   May 2018 - July 2018
Advisor : Prof. Manu Awasthi

PUBLICATIONS   *Paper titles are hyperlinked*

Performance optimization opportunities in the Android software stack
Varun Gohil*, Nisarg Ujjainkar*, Joycee Mekie, Manu Awasthi
BenchCouncil Transactions on Benchmarks, Standards and Evaluations (**TBench**), October 2021

Fixed-Posit: A Floating-Point Representation for Error-Resilient Applications
Varun Gohil*, Sumit Walia*, Joycee Mekie, Manu Awasthi
IEEE Transactions on Circuits and Systems II : Express Briefs (**TCAS-II**), April 2021

Prefetching in Hybrid Main Memory Systems
Subisha V, Varun Gohil, Nisarg Ujjainkar, Manu Awasthi
12th USENIX Workshop on Hot Topics in Storage and File Systems (**HotStorage**) 2020

[Reproducibility Report] One ticket to win them all: generalizing lottery ticket initializations across datasets and optimizers
Varun Gohil*, S. Deepak Narayanan*, Atishay Jain*
NeurIPS Reproducibility Challenge, **ReScience C**, 2020.

Effect of Feature Hashing on Fair Classification
Ritik Dutta*, Varun Gohil*, Atishay Jain*
Young Researchers' Symposium, ACM India Joint International Conference on Data Science & Management of Data, (**CODS-COMADS**) 2020

FAB: Framework for Analyzing Benchmarks

Varun Gohil*, Shreyas Singh*, Manu Awasthi

Work in Progress Track, 10th International Conference on Performance Engineering (**ICPE**) 2019

META: Memory Exploration Tool for Android Devices

Nisarg Parikh, Varun Gohil, Manu Awasthi

Poster Track, 24th International Conference on Mobile Computing and Networking (**MobiCom**) 2018

* indicates equal contribution

AWARDS AND HONORS

· Awarded the Jacobs Fellowship at Cornell University   September 2021
· Awarded cash prize of Rs.12,500 by IIT Gandhinagar for undergraduate research   July 2021
· Best Presentation Award Finalist, HotStorage 2020   July 2020
· Received Special Mention in Undergraduate Research Conclave, IIT Gandhinagar.   September 2019
· Secured a position in Top 5 for poster presentation at SRIP 2018, IIT Gandhinagar.   July 2018

Grants : USENIX ATC 2020, ISCA 2019 (uArch), SIGSOFT CAPS ICPE 2019, ACM MobiCom 2018

TECHNICAL SKILLS

Programming Languages	Python, C/C++, Verilog
Cloud Computing Tools	Docker, Kubernetes, OpenTelemetry, Jaeger
Architectural Tools	Intel Pin, Intel Vtune, NVMain, ZSim, QEMU, Systrace
Others	LaTeX, Git, PyTorch

TEACHING EXPERIENCE

Teaching Assistant   December 2019 - May 2020

Machine Learning, IIT Gandhinagar   *Instructor: Prof. Nipun Batra*

· Gave a lecture on Automatic Differentiation (*Video Link*)
· Developed a toy neural network library (*Code Link*)
· Assisted instructor in creating slides and interactive notebooks for lectures.

Teaching Assistant   July 2019 - November 2019

Operating Systems, IIT Gandhinagar   *Instructor: Prof. Nipun Batra*

· Conducted 10 lab sessions focusing on virtualization, concurrency and file systems.
· Gave a lecture on Assembly Language (*Slides*)

MISCELLANEOUS ACTIVITIES

· Served as a PRIMES mentor and advised two high-school students on their research project.
· Conducted a tutorial on DRAM timing parameters at Computer Architecture Winter School (CAWS).
· Served as a pre-conference volunteer for ICLR 2020.