

Tapan Chugh

Ph.D. Student

Paul G. Allen School of Computer Science and Engineering

University of Washington, Seattle

Advisors: Prof. Arvind Krishnamurthy & Prof. Ratul Mahajan

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EDUCATION

University of Washington, Seattle,

Sep'19 - present

PhD Student in Computer Science and Engineering,

Advisors: Prof. Arvind Krishnamurthy & Prof. Ratul Mahajan

Supported by the **Gary Kildall Endowed Fellowship** (2019 - 2020)

Indian Institute of Technology Madras,

July'12 - July'17

Master of Technology in Computer Science and Engineering,

Bachelor of Technology in Computer Science and Engineering,

Czech Technical University in Prague,

Feb'16 - July'16

Exchange Semester in Faculty of Informatics

PUBLICATIONS

- **Efficient Serving of ML Models for Recommendation in Dynamic Production Environments**
Tapan Chugh, Zhipeng Jia, Fan Lai, Jaideep Singh, Brent E. Stephens, Arvind Krishnamurthy, Henry M. Levy & David E. Culler
Under Submission
- **Efficient Direct-Connect Topologies for Collective Communications**
Liangyu Zhao, Siddharth Pal, **Tapan Chugh**, Weiyang Wang, Jason Fantl, Prithwish Basu, Joud Khoury & Arvind Krishnamurthy
USENIX Symposium on Networked Systems Design and Implementation (NSDI), 2025. [\[Link\]](#)
- **Anticipatory Resource Allocation for ML Training**
Tapan Chugh, Srikanth Kandula, Arvind Krishnamurthy, Ratul Mahajan & Ishai Menache
In Proceedings of the 2023 ACM Symposium on Cloud Computing (SoCC '23) [\[Link\]](#)
- **Dremel: Adaptive Configuration Tuning of RocksDB KV-Store**
Chenxingyu Zhao, **Tapan Chugh**, Jaehong Min, Ming Liu & Arvind Krishnamurthy
In Proceedings of The ACM SIGMETRICS 2022 Conference (SIGMETRICS '22) [\[Link\]](#)
- **Gimbal: Enabling Multi-Tenant Storage Disaggregation on SmartNIC JBOFs**
Jaehong Min, Ming Liu, **Tapan Chugh**, Chenxingyu Zhao, Andrew Wei, In Hwan Doh & Arvind Krishnamurthy
In Proceedings of The ACM SIGCOMM 2021 Conference (SIGCOMM '21) [\[Link\]](#)
- **Astra: Exploiting Predictability to Optimize Deep Learning**
Muthian Sivathanu, **Tapan Chugh**, Sanjay Srivallabh & Lidong Zhou
In Proceedings of The Twenty-Fourth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS) 2019 [\[Link\]](#)

INDUSTRY RESEARCH EXPERIENCE

- **Systems Research @ Google** Seattle, WA, USA
Student Researcher Apr'22 - Jun'25
- **Microsoft Research** Redmond, WA, USA
Research Intern (Advised by: Dr. Srikanth Kandula & Dr. Ishai Menache) June'20 - Feb'22
- **Microsoft Research** Bangalore, India
Research Fellow (Advised by: Dr. Muthian Sivathanu) July'17 - July'19

NON-RESEARCH WORK EXPERIENCE

- **Facebook** London, UK
Software Engineering Intern May'16 - July'16
- **Microsoft India R&D Private Limited** Bangalore, India
Software Engineering Intern May'15 - July'15

- **Hasura** (*Formerly 34 Cross*)
Software Engineering Intern

Chennai, India
May'14 - July'14

TEACHING

- **CSE 599K: Systems for ML**
Teaching Assistant, CSE, University of Washington (Instructor: Prof. Arvind Krishnamurthy) *Sep'24 - Dec'24*
- **CSE 463: Introduction to Computer Communication Networks**
Teaching Assistant, CSE, University of Washington (Instructor: Prof. Ratul Mahajan) *Mar'23 - June'23*
- **Cloud Computing**
Teaching Assistant, CSE, IIT Madras (Instructor: Prof. D. Janakiram) *Jan'17 - May'16*
- **Operating Systems**
Teaching Assistant, CSE, IIT Madras (Instructor: Prof. Chester Rebeiro) *Aug'16 - Dec'16*