

VENKAT ARUN

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EDUCATION

Massachusetts Institute of Technology

2019-Present

Ph.D. Student in Dept. of EECS

Advisors: Hari Balakrishnan and Mohammad Alizadeh

Massachusetts Institute of Technology

2017-2019

Master of Science, Dept. of EECS (February 2019)

Advisors: Hari Balakrishnan and Mohammad Alizadeh

Indian Institute of Technology Guwahati

2013-2017

B.Tech. in Computer Science & Engineering

GPA: 9.83/10 (Highest GPA among graduating students at IIT Guwahati)

PUBLICATIONS

-
- **Formally Verifying Congestion Control Performance**
Venkat Arun, Mina Arashloo, Ahmed Saeed, Mohammad Alizadeh, Hari Balakrishnan
ACM SIGCOMM 2021
 - **Copa: Practical Delay-Based Congestion Control for the Internet**
Venkat Arun, Hari Balakrishnan
USENIX NSDI 2018
Being used in production at Facebook
<https://web.mit.edu/copa/>
 - **RFocus: Practical Beamforming for Small Devices**
Venkat Arun, Hari Balakrishnan
USENIX NSDI 2020
<https://people.csail.mit.edu/venkatar/rfocus.html>
 - **Finding Safety in Numbers with Secure Allegation Escrows**
Venkat Arun, Aniket Kate, Deepak Garg, Peter Druschel, Bobby Bhattacharjee
NDSS Symposium 2020
<https://arxiv.org/abs/1810.10123>
 - **Language-Directed Hardware Design for Network Performance Monitoring**
Srinivas Narayana, Anirudh Sivaraman, Vikram Nathan, Prateesh Goyal, Venkat Arun, Mohammad Alizadeh, Vimalkumar Jeyakumar, and Changhoon Kim
ACM SIGCOMM 2017
Best Paper Award
<https://web.mit.edu/marple/>
 - **Privid: Practical, Privacy-Preserving Video Analytics Queries**
Frank Cangialosi, Neil Agarwal, Venkat Arun, Junchen Jiang, Srinivas Narayana, Anand Sarwate, Ravi Ne-travali
USENIX NSDI 2022
<https://arxiv.org/pdf/2106.12083.pdf>
 - **Throughput-Fairness Tradeoffs in Mobility Platforms**
Arjun Balasingam, Karthik Gopalakrishnan, Radhika Mittal, Venkat Arun, Ahmed Saeed, Mohammad Al-izadeh, Hamsa Balakrishnan, Hari Balakrishnan
ACM MobiSys 2021
<https://people.csail.mit.edu/arjunvb/pubs/mobius-mobisys21-paper.pdf>

PAST EXPERIENCE

Intern, Facebook inc.

Fall 2020

Experimented with and helped improve WAN congestion control at Facebook.

Intern, Max Planck Institute for Software Systems

Summer 2016

Profs. Deepak Garg, Peter Druschel, and Krishna Gummadi

Designed a cryptographically secure allegation escrow (SAE), the first such design to our knowledge

Intern, Massachusetts Institute of Technology

Summer 2015

Prof. Hari Balakrishnan

Developed Copa, a new general purpose congestion control algorithm for the wide-internet

HONORS AND AWARDS

- ACM SIGCOMM Best Paper Award, 2017
- Jacobs Presidential Fellowship, 2017 (MIT)
- President of India Gold Medal, 2017 (IIT Guwahati)
- Institute Merit Scholarship, 2015 and 2016 (IIT Guwahati)
- KVPY Government of India Scholarship, 2013