

**SANGEETHA ABDU JYOTHI**  
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## EDUCATION

### University of Illinois, Urbana-Champaign

Ph.D., Computer Science 2013 - 2019

### University of Pennsylvania

Master of Science, Telecommunications and Networking 2010 - 2012

### National Institute of Technology, Calicut, India

Bachelor of Technology, Electronics and Communication Engineering 2006 - 2010

## WORK EXPERIENCE

### University of California, Irvine

Assistant Professor, Department of Computer Science Jul 2020 - Present

### VMware Research, Palo Alto

Affiliated Researcher Sep 2020 - Present

Postdoctoral Researcher Sep 2019 - Jun 2020

### Microsoft, Redmond

Research Collaborator with Microsoft Research and Cloud & Information Services Lab (CISL) Oct 2015 - May 2016

### Microsoft Research, Redmond

Research Intern May 2015 - Aug 2015

### Google, Mountain View

Software Engineering Intern with Platforms Networking Team. May 2014 - Aug 2014

## SELECTED HONORS AND AWARDS

- IETF/IRTF Applied Networking Research Prize 2022
- Invited to the Rising Stars in EECS Workshop at MIT 2018
- Facebook Graduate Fellowship (1 of 13 students selected worldwide) 2017 - 2019
- Mavis Future Faculty Fellowship awarded by the UIUC College of Engineering 2017 - 2018
- Gold Medal for first rank in Bachelors at the National Institute of Technology, Calicut 2010
- NTSE scholarship, NCERT, Government of India 2004 - 2010  
(1 of 1000 students selected from nearly a million applicants nationwide)

## PUBLICATIONS

- cISP: A Speed-of-Light Internet Service Provider  
Debopam Bhattacharjee, Waqar Aqeel, **Sangeetha Abdu Jyothi**, Ilker Nadi Bozkurt, William Sentosa, Muhammad Tirmazi, Anthony Aguirre, Balakrishnan Chandrasekaran, P. Brighten Godfrey, Gregory P. Laughlin, Bruce M. Maggs, Ankit Singla  
[NSDI'22] The 19th USENIX Symposium on Networked Systems Design and Implementation, 2022
- Solar Superstorms: Planning for an Internet Apocalypse  
**Sangeetha Abdu Jyothi**  
[SIGCOMM'21] *In the Proceedings of the 2021 ACM SIGCOMM conference*, 2021
- Building Scalable and Flexible Cluster Managers Using Declarative Programming  
Lalith Suresh, Joao Loff, Faria Kalim, **Sangeetha Abdu Jyothi**, Nina Narodytska, Leonid Ryzhyk, Sahan Gamage, Brian Oki, Pranshu Jain, Michael Gasch  
[OSDI'20] 14th USENIX Symposium on Operating Systems Design and Implementation, 2020

- Spineless Data Centers  
Vipul Harsh, **Sangeetha Abdu Jyothi**, Brighten Godfrey  
[HotNets'20] 19th ACM Workshop on Hot Topics in Networks
- Towards An Application Objective-Aware Network Interface  
**Sangeetha Abdu Jyothi\***, Sayed Hadi Hashemi\*, Roy H. Campbell, Brighten Godfrey  
[HotCloud'20] 12th USENIX Workshop on Hot Topics in Cloud Computing, 2020
- TicTac: Accelerating Distributed Deep Learning with Communication Scheduling  
Sayed Hadi Hashemi\*, **Sangeetha Abdu Jyothi\***, Roy H. Campbell (\* = co-primary authors)  
[MLSys'19] The Conference on Systems and Machine Learning, 2019
- Is Advance Knowledge of Flow Sizes a Plausible Assumption?  
Vojislav Dukic, **Sangeetha Abdu Jyothi**, Bojan Karlas, Muhsen Owaida, Ce Zhang, Ankit Singla  
[NSDI'19] The 16th USENIX Symposium on Networked Systems Design and Implementation, 2019
- On The Importance of Execution Ordering in Graph-Based Distributed Machine Learning Systems  
Sayed Hadi Hashemi, **Sangeetha Abdu Jyothi**, Roy H. Campbell  
[MLSys'18] The Conference on Systems and Machine Learning, 2018
- Morpheus: Towards Automated SLOs for Enterprise Clusters  
**Sangeetha Abdu Jyothi**, Carlo Curino, Ishai Menache, Shravan Matthur Narayanamurthy, Alexey Tumanov, Jonathan Yaniv, Ruslan Mavlyutov, Inigo Goiri, Subru Krishnan, Janardhan Kulkarni, Sriram Rao  
[OSDI'16] 12th USENIX Symposium on Operating Systems Design and Implementation, 2016
- Measuring and Understanding Throughput of Network Topologies  
**Sangeetha Abdu Jyothi**, Ankit Singla, P. Brighten Godfrey, Alexandra Kolla  
[SC'16] ACM/IEEE International Conference for High Performance Computing, Networking, Storage and Analysis, 2016
- Towards a Flexible Data Center Fabric with Source Routing  
**Sangeetha Abdu Jyothi**, Mo Dong, P. Brighten Godfrey  
[SOSR'15] ACM Symposium on SDN Research, 2015
- Measuring Throughput of Data Center Network Topologies  
**Sangeetha Abdu Jyothi**, Ankit Singla, P. Brighten Godfrey and Alexandra Kolla  
[SIGMETRICS '14] 2014 ACM international conference on Measurement and modeling of computer systems (Short paper)

## TEACHING EXPERIENCE

### University of California, Irvine

CS 295: Systems and Machine Learning

Winter 2022

CS 290: Reflections on Research

Winter 2022

CS 295: Systems and Machine Learning

Winter 2021

## SERVICE

- Organizing
  - \* **2021**: Co-chair, ATC/OSDI Preview Sessions
- Program Committee Member
  - \* **2023**: NSDI
  - \* **2022**: NSDI, EuroSys, IMC, APSys, ML for Computer Architecture and Systems Workshop @ ISCA
  - \* **2021**: ATC, SoCC, CoNEXT, ML for Computer Architecture and Systems Workshop @ ISCA, SOSP Student Research Competition, Posters/Demos at SIGCOMM
  - \* **2020**: SIGCOMM, ATC, CoNEXT, NetAI Workshop at SIGCOMM, Posters/Demos at SIGCOMM
- Reviewer
  - \* Transactions on Computer Systems 2019
  - \* IEEE/ACM Transactions on Networking 2020, 2018, 2017, 2015

- \* Journal of Systems Research 2021
- \* External Reviewer: European Conference on Parallel and Distributed Computing (Euro-Par) 2016

## INVITED TALKS

### **Solar Superstorms: Planning for an Internet Apocalypse**

UHS Girls Who Code Seminar	Nov 2021
Microsoft Azure	Sep 2021
Brown CS Systems Seminar	Sep 2021
SIGCOMM conference	Aug 2021
UCI IoTSity REU Seminar	Aug 2021

### **DNN Training Acceleration through Better Communication-Computation Overlap**

NYU ECE Seminar	Nov 2020
UCI CS Seminar Series	Oct 2020
Invited Talk at ML for Computer Architecture and Systems Workshop at ISCA	Jun 2020

### **Automated Resource Management in Large-Scale Networked Systems**

VMware Research	Apr 2019
University of Toronto	Mar 2019
University of British Columbia, Vancouver	Mar 2019
Max Planck Institute for Software Systems, Germany	Mar 2019
University of Southern California	Feb 2019
University of California, Irvine	Feb 2019
University of Minnesota, Twin Cities	Feb 2019
University of Wisconsin, Madison	Nov 2018

### **Morpheus: Towards Automated SLOs for Enterprise Clusters**

University of British Columbia	Jan 2018
Simon Fraser University	Jan 2018

### **Facebook Fellows Research Summit at Facebook Headquarters, Menlo Park**

WAND: WAN As A Network of Data Centers	Sep 2017
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### **OSDI 2016, Savannah, Georgia**

Morpheus: Towards Automated SLOs for Enterprise Clusters	Nov 2016
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### **SC 2016, Salt Lake City, Utah**

Measuring and Understanding Throughput of Network Topologies	Nov 2016
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### **SOSR 2015, Santa Clara, California**

Towards a Flexible Data Center Fabric with Source Routing	Jun 2015
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