Siva Kesava Reddy Kakarla

Computer Science (PhD), UCLA

486 Engineering VI
University of California Los Angeles, CA 90024
✉ *sivakesava@cs.ucla.edu*
🌐 *sivakesava1.github.io*

Interests

I am a third year PhD Student in the Network Verification (NetVerify) Group at University of California, Los Angeles. My research interests lie at the intersection of Networks and Programming Languages.

Education

2017 – Present **M.S. and Ph.D. in Computer Science.**
University of California, Los Angeles (UCLA), CA, USA.
CGPA: 4.0 / 4.0.
Advisors: *Prof. Todd Millstein* and *Prof. George Varghese*

2013 – 2017 **B. Tech. in Computer Science and Engineering (*Honors*).**
Indian Institute of Technology, Kharagpur, India.
CGPA: 9.67 / 10.0.

Publications

SIGCOMM '20 **GRooT: Proactive Verification of DNS Configurations.**
Siva Kesava Reddy Kakarla, Ryan Beckett, Behnaz Arzani, Todd Millstein, George Varghese.
📄 *Proceedings of the Conference of the ACM Special Interest Group on Data Communication, SIGCOMM 2020.*
Artifact https://github.com/dns-groot/2020_SIGCOMM_Artifact_157

NSDI '20 **Finding Network Misconfigurations by Automatic Template Inference (SELFSTARTER).**
Siva Kesava Reddy Kakarla, Alan Tang, Ryan Beckett, Karthick Jayaraman, Todd Millstein, Yuval Tamir, George Varghese.
📄 *Proceedings of the 17th USENIX Symposium on Networked Systems Design and Implementation, NSDI 2020,* pages 999–1013.
Artifact https://github.com/SivaKesava1/SelfStarter

arXiv '19 **Expect More from the Network: DDoS Mitigation by FITT in Named Data Networking.**
Zhiyi Zhang, Vishrant Vasavada, Siva Kesava Reddy Kakarla, Eric Osterweil, and Lixia Zhang.
📄 *CoRR,* abs-1902-09033.

GLOBECOM '17 **IEEE 802.11ac DBCA: A Tug of War between Channel Utilization and Fairness.**
Mahankali Saketh, Siva Kesava Reddy Kakarla, Raja Karmakar, Samiran Chattopadhyay, Sandip Chakraborty.
📄 *Proceedings of the IEEE Global Communications Conference, 2017,* pages 1–6.

Awards and Honors

2018–2019 Received a UCLA Dean's Graduate Student Research (GSR) Fellowship.

2017 Received the prestigious UCLA Graduate Dean's Scholar Award (GDSA), offered to the department's top incoming PhD student.

2014 – 2017 Received a JBNSTS Scholarship.

2013	Secured all India Rank-330 in IIT-JEE Advance.
2013	Secured all India Rank-229 in Joint Entrance Examination(JEE) Mains.
2011 – 2013	Received a KVPY Fellowship (Dept. of Science and Technology, India).

Talks and Presentations

July '20	GROOT – Intentionet	*Virtual*
Feb '20	SELFSTARTER – The 2020 NSDI Conference	*Santa Clara, CA*
Sep '19	GROOT – MNR Group, Microsoft Research	*Redmond, WA*
Aug '19	SELFSTARTER – Intentionet and Microsoft Research	*Seattle/Redmond, WA*

Research Experience

Google
(Intern)
Static Analysis of Google's Router Configurations and Metro Topologies
with *Jayaram Mudigonda and, Anees Shaikh*, NetInfra Group. *Summer '20*

Microsoft
(Intern, Remote)
GROOT: Proactive Verification of DNS Configurations
with *Ryan Beckett, Behnaz Arzani (MNR Group, MSR), Prof. Todd Millstein and, Prof. George Varghese* *Summer '19 – Spring '20*

UCLA
(Graduate RA)
Finding Network Misconfigurations by Automatic Template Inference
with *Ryan Beckett (Mobility and Networking group, Microsoft Research), Karthick Jayaraman (Windows Azure security group, Microsoft), Prof. Todd Millstein, Prof. Yuval Tamir and, Prof. George Varghese* *Summer '18 – Summer '19*

UCLA
(Course Project)
Producer-Assisted Pushback
with *Prof. Lixia Zhang*, Internet Research Lab. *Winter '18 – Spring '18*

IIT Kharagpur
(UG Thesis)
Does QUIC Kill Your Data Plan? A View Using YouTube Adaptive Streaming Clients
with *Prof. Sandip Chakraborty*, Complex Network Research Group (CNeRG). *Fall '16 – Spring '17*

IIT Kharagpur
(UG RA)
IEEE 802.11ac DBCA: A Tug of War Between Channel Utilization & Fairness
with *Prof. Sandip Chakraborty*, Complex Network Research Group (CNeRG). *Fall '16 – Spring '17*

IISc Bangalore
(Intern)
Experimenting with Akka Package
with *Prof. Komondoor V. Raghavan*, Compilers, PL and SE Group. *Summer '15*

Professional Experience

LinkedIn
Enhancement of LinkedIn spam detection tool with dependency injection model and Mockito unit tests
(Intern)
with *Prashanth Nimmagadda*, Content Filtering & Spam Detection Team. *Summer '16*

Teaching Experience

UCLA
CS 118 – Computer Network Fundamentals *Fall '19*
Graduate Teaching Assistant