

Siva Kesava Reddy Kakarla

Computer Science (PhD), UCLA

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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. My research seeks to address limitations in network verification technology.

Education

- 2017 – Present **MS / PhD in Computer Science.**
University of California, Los Angeles. 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. 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. To Appear.*
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

- 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

Microsoft GRoot: Proactive Verification of DNS Configurations

- (Intern, Remote) with *Ryan Beckett, Behnaz Arzani (MNR Group), Prof. Todd Millstein and, Prof. George Varghese* *Summer '19 – Spring '20*

UCLA Finding Network Misconfigurations by Automatic Template Inference

- (Graduate RA) 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 Producer-Assisted Pushback

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

IIT Kharagpur Does QUIC Kill Your Data Plan? A View Using YouTube Adaptive Streaming Clients

- (UG Thesis) with *Prof. Sandip Chakraborty*, Complex Network Research Group (CNeRG). *Fall '16 – Spring '17*

IIT Kharagpur IEEE 802.11ac DBCA: A Tug of War Between Channel Utilization & Fairness

- (UG RA) with *Prof. Sandip Chakraborty*, Complex Network Research Group (CNeRG). *Fall '16 – Spring '17*

IISc Bangalore Experimenting with Akka Package

- (Intern) 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. | *Bangalore Summer '16*

Teaching Experience

UCLA CS 118 – Computer Network Fundamentals

Graduate Teaching Assistant

Fall '19