Mallesham Dasari

Email: mdasari@cs.stonybrook.edu
Mobile: +1 (573) 202 1805
Website: http://www3.cs.stonybrook.edu/~mdasari/

700 Health Sciences Drive
New Computer Science
Stony Brook, NY, USA - 11790

EDUCATION

Stony Brook University, Stony Brook, NY, USA
PhD in Computer Science, Aug 2016 - Present — CGPA: 3.88
Advisor: Prof. Samir Das

Osmania University, Hyderabad, India
Master's in Computer Science, Dec 2012 - Dec 2014 — CGPA: 4.0
Advisor: Prof. Shyamala Ravi Kattula

Osmania University, Hyderabad, India
Bachelor's in Computer Science, Aug 2008 - May 2012 — CGPA: 4.0
Advisor: Prof. Shyamala Ravi Kattula

RESEARCH

I am broadly interested in improving next generation mobile and networking systems.

RESEARCH EXPERIENCE

AT&T Labs, Bedminister, NJ, Intern — **June 2018 - August 2018**
Advisor: Vijay Gopalakrishnan
Automating the lifecycle of virtual network functions. The automation includes triggering the VNF operations such as scaling, migration and load balancing while ensuring the low cost and performance benefits.

HP Labs, Palo Alto, CA, Intern — **May 2017 - April 2018**
Advisor: Kyu-Han Kim and Christina Vlachou
Data-driven improvements to video quality of user experience at the last hop of the network. Making the performance metrics of video applications available to enterprise network administrators for network resource provisioning.

PUBLICATIONS

Spectrum Protection from Micro Signals with Distributed Spectrum Patrolling
Mallesham Dasari, Mohammad Bershgal Atique, Arani Bhattacharya, Samir R. Das
PAM 2019.

Impact of Device Performance on Mobile Internet Quality of Experience
Mallesham Dasari, Santiago Vargas, Arani Bhattacharya, Aruna Balasubramanian, Mike Ferdman, Samir R. Das
ACM IMC 2018.

Scalable Ground-truth Annotation for Video QoE Modeling in Enterprise WiFi
Mallesham Dasari, Christina Vlachau, Shruti Sandhya, Kyu-Han Kim, Samir R. Das
ACM/IEEE IWQoS 2018.

Transition Prediction in Material System using Deep Learning
Pranjal Sahu, Dantong Yu, Kevin Yager, **Mallesham Dasari**, Hong Qin
ACM HPDC AI-Science Workshop 2018.

Poster: Demystifying Hardware Bottlenecks in Mobile Web Quality of Experience
Mallesham Dasari, Conor Kelton, Aruna Balasubramanian, Samir R. Das
ACM SIGCOMM 2017.

INDUSTRY EXPERIENCE

Uurmi Systems, Hyderabad, India, Senior Engineer — **May 2012 - Jan 2016**
Advisor: Dr. Shanti Swarup
Design and development of L2/L3 network protocols in embedded Linux. The work also includes an extensive simulation of TDMA MAC and AODV routing protocols in NS-3. A test-bed is setup with 20 ARM DM3730 TI OMAP Processors.

Uurmi Systems, Hyderabad, India, Intern **Jan 2012 - May 2012**
Hardware acceleration of video coding. The work includes porting complex code blocks of x264 encoder and FFMPEGs H.264 decoder onto TI DM3730 DSP processor.

IDRBT, Hyderabad, India **May 2011 - July 2011**
Advisor: Dr. VN. Sastry
Grid Computing. Design and prototype development of banking grid portal. Users could submit their long running jobs (e.g, regression analysis) in the grid of six systems, through a grid portal, for faster execution and results.

ACADEMIC PROJECTS

Stony Brook University, Stony Brook **August 2016 - Dec 2016**
Supporting per-process based system calls in Linux kernel. The project work includes creating, overriding, modifying, customizing, inheriting of system calls for which Linux kernel does not support.

Osmania University, Hyderabad, India **Jan 2014 - Dec 2014**
Accelerating Image restoration algorithms on GPU using OpenCL on nVidia GPU. The project is as part of Master's thesis work and includes code profiling and reorganization of belief propagation algorithm.

COMPUTER SKILLS

Languages: C, Python, C++, Linux Kernel Programming, OpenCL.
Others: TensorFlow, Keras, NS-3 Network Simulator, Wireshark, Eclipse, Git

AWARDS AND HONORS

Innovation Award for proposing new algorithms at L2/L3 networks protocols, Network Research Group, Uurmi Systems Private Limited, India, 2015.

Tutorial Speaker on *"Wireless Mobile Ad hoc Networks"* at ICACCI International Conference, Kerala, India, 2015.

Received NSF Travel awards for ACM/IEEE SEC 2018, ACM IMC 2018, Usenix NSDI 2018, ACM CONEXT 2017, ACM SIGCOMM 2017 and IEEE CCNC 2017.

TPC: ACM IMC'2018 (Shadow PC), IEEE Journal of IoT'2018, ICACCI'2014-2018, IEEE INDICON'2015, IEEE CONECCT'2015.

TEACHING EXPERIENCE

Instructor, Stony Brook University **Spring 2019, Fall 2018**
WISE 380: Women in Science & Engineering, Seminar-type Course
Teaching undergraduate students about the research methodologies in science, technology, engineering, and mathematics (STEM) disciplines, including literature reviews, research design, data collection, and quantitative analysis.

Teaching Assistant, Stony Brook University
CSE 392: Network Programming **Spring 2017**
CSE 373: Data Structures and Algorithms **Fall 2016**

Instructor: University of Missouri, Rolla **Spring 2016**
Google Ignite CS computer science education. Teaching junior high school students about computer science (programming and research).