

Hardik Soni

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ACADEMIA

CORNELL UNIVERSITY

Postdoctoral Associate

Aug.2018-Nov.2020 | Ithaca, NY, USA

UNIVERSITE CÔTE D'AZUR

Ph.D. Student Funded by

INRIA 2014-2018 | Sophia

Antipolis

Master Informatique

Fondements et Ingénierie

2013-14 | Nice, France | Cum.

GPA: 14.59/20

INDIAN INSTITUTE OF TECHNOLOGY, MADRAS

Master of Technology in Computer Science & Engineering

2009-11 | Chennai, India | Cum. GPA: 9.18/10

Dharmsinh Desai Institute of Technology, Nadiad Bachelor of Engineering 2004-08 | Nadiad, India | Score: 62.62 %

SKILLS

TECHNICAL & PROGRAMMING

Languages and Topics:

P4, C, C++, Java

Python, Scripting Lang.

Compilers, Networks, OS

Computer Architectures

Pattern Recognition, AI

Artificial Neural Networks

Tools:

Vim, Tex, Git

SDN Controllers and Platforms

VirtualBox, qemu, KVM, Docker

LaTeX, GDB, tcpdump

Socket Programming

Other:

Postdoc Leadership Development

Program - Cornell University

SERVICES

- TPC Member ACM SOSR 2022
- Reviewer for IEEE Transactions on Network and Service Management 2021

INDUSTRY EXPERIENCE

NEC LABORATORIES EUROPE GMBH | Senior Researcher

Jan.2021-Present | Heidelberg, Germany

- Initiating new research projects that provide a competitive edge to the product divisions and business units.
- Execute concrete research ideas, collaborate with team members, and contribute to publish the research in renowned conferences.

ALCATEL-LUCENT | Senior Software Engineer Jun.2011 – Sep.2013 | Bangalore, India

- Statistics Collector for High Performance Network Equipment (LTE HeNB Gateway)
- Designed and developed a module to periodically generate statistics and report them to other operational processes in the presence of 128K+ parallel calls
- Load Balancer for SCTP Connections towards Evolved Packet Core(EPC) and E-UTRAN
- One process establishes SCTP connections towards femto cells in E-UTRAN. The other process handles the SCTP connections towards EPC. It connects to available peer core network elements and shares the socket descriptor to other CP processes.
- Network Media Processing Platform - (Yangtze 9980)
- I was involved in design and development of a packet generator tool to test the Network Media Processing Platform.

CYBAGE | Software Engineer Jun 2008 – Jul 2009 | Gujarat, India

- worked as a developer and tester for a programming framework on top of Windows Communication Foundation, Windows Workflow Foundation, and Runtime Environment.

RESEARCH & ACADEMIC PROJECTS

Composing Dataplane programs with μ P4 [Pdf] [Git]

SIGCOMM '20: Annual conference of the ACM Special Interest Group on Data Communication

Ph.D Thesis : Towards network softwarization : a modular approach for network control delegation [Pdf]

Universite Côte d'Azur, 2018

P4Bricks: Enabling multiprocessing using Linker-based network data plane architecture [Pdf][Git]

HAL-INRIA Open Archive, February, 2018

NFV-based Scalable Guaranteed-Bandwidth Multicast Service for Software Defined ISP networks [Pdf][Project]

IEEE Transactions on Network And Service Management (TNSM) | Special Issue On Advances In Management Of Softwarized Networks, Dec 2017

M.Tech Thesis : Classification of Execution Intervals of Program/Input pair using cache miss and Discrete Hidden Markov Model (DHMM) [Pdf]

Indian Institute of Technology Madras, 2010-11