

Nikhil Jain

Professional Preparation

- 2009 **B.Tech., Computer Science & Engineering**, Indian Institute of Technology, Kanpur
- 2009 **M.Tech., Computer Science & Engineering**, Indian Institute of Technology, Kanpur
- 2016 **Ph.D., Computer Science**, University of Illinois at Urbana-Champaign

Appointments

- 2016–present **Fernbach Postdoctoral Fellow**, Center for Applied Scientific Computing, LLNL
- 2011–2016 **Research Assistant**, Parallel Programming Laboratory, Ullinois
- Summer 2014 **Research Intern**, Center for Applied Scientific Computing, LLNL
- Summer 2012 **Research Intern**, Center for Applied Scientific Computing, LLNL
- Spring 2011 **Visiting Scholar**, Parallel Programming Laboratory, Ullinois
- 2009–2011 **Blue Scholar**, IBM Research, New Delhi
- Summer 2007 **Research Scholar**, Polytechnic Institute of NYU

Selected Publications

- [1] **Nikhil Jain**, Abhinav Bhatele, Sam White, Todd Gamblin, and Laxmikant Kale. Evaluating HPC Networks via Simulation of Parallel Workloads. *SC 2016*.
- [2] **Nikhil Jain**, Eric Bohm, Eric Mikida, Subhasish Mandal, Minjung Kim, Prateek Jindal, Qi Li, Sohrab Ismail-Beigi, Glenn J. Martyna, and Laxmikant V. Kale. OpenAtom: Scalable Ab-Initio Molecular Dynamics with Diverse Capability. *ISC HPC 2016*.
- [3] Abhinav Bhatele, **Nikhil Jain**, Yarden Livnat, Valerio Pascucci, and Peer-Timo Bremer. Analyzing network health and congestion in dragonfly-based systems. *IPDPS 2016*.
- [4] **Nikhil Jain**, Abhinav Bhatele, Jae-Seung Yeom, Mark F. Adams, Francesco Miniati, Chao Mei, Laxmikant Kale. Charm++ & MPI: Combining the Best of Both Worlds. *IPDPS 2015*.
- [5] Ehsan Toton, **Nikhil Jain**, Laxmikant Kale. Power Management of Extreme-scale Networks with On/Off Links in Runtime Systems. *TOPC 2014, Journal*.
- [6] **Nikhil Jain**, Abhinav Bhatele, Xiang Ni, Nicholas J. Wright, Laxmikant Kale. Maximizing Network Throughput on the Dragonfly Interconnect. *SC 2014*.
- [7] **Nikhil Jain**, Abhinav Bhatele, Michael Robson, Todd Gamblin, Laxmikant Kale. Predicting application performance using supervised learning on communication features. *SC 2013*.
- [8] Xiang Ni, Esteban Meneses, **Nikhil Jain**, Laxmikant Kale. ACR: Automatic Checkpoint/Restart for Soft and Hard Error Protection. *SC 2013*.
- [9] Abhinav Bhatele, **Nikhil Jain**, William Gropp and Laxmikant Kale. Avoiding hot-spots on two-level direct networks. *SC 2011*.
- [10] **Nikhil Jain** and Yogish Sabharwal. Optimal Bucket Algorithms for large MPI Collectives on Torus Interconnect. *ICS 2010*.

Awards

Fernbach Postdoctoral fellowship, 2016. IBM PhD fellowship, 2014. Andrew and Shana Laursen fellowship, 2011.

Synergistic Activities

Book Chapter	Programming Models for Parallel Computing
TPC	COMHPC '16
Other Reviewing	TPDS, IJHPCA, JPDC, Biophysical, IPDPS '14, Cluster '12
Memberships	ACM, IEEE

Graduate and Postdoctoral Advisors: Todd Gamblin (LLNL), Abhinav Bhatele (LLNL), Laxmikant V. Kale (Ullinois)