# HARISH NAIK

625 W Madison St, Apt 1011, Chicago, IL 60661
+1 (312) 504-5616 ⋄ harishgnaik@gmail.com

## EDUCATION

**University of Illinois at Chicago** **2016-Present**
Ph.D. [Ongoing], Computer Science
*Emphasis*: My research focuses on enhancing interpretability in deep learning with a focus on understanding representations in convolutional neural networks.

**University of Illinois at Chicago** **2006-2008**
Master of Science, Computer Science
Emphasis: Parallel & distributed computing using MPI

**Rastreeya Vidhyalaya College of Engineering, Bengaluru** **2000-2004**
Bachelor of Engineering, Computer Science & Engineering

## PROFESSIONAL WORK EXPERIENCE

**HERE Technologies** *Senior Software Engineer* **2016-Present**
*Languages: C++14/17, Python*

Worked on detecting objects from 3D LiDAR data in C++ using some of the most recent standards. Also wrote software infrastructure for data ingestion and application frameworks. Worked on projects to study efficiency of production/map-publicaton pipeline, recommended changes and incorporated changes our own detection code. Wrote workflows code in Python for feature detection and evaluation.

**Simplex Investments, LLC** *Software Developer - HFT Applications* **2013-2016**
*Languages: C++11, Python*
Wrote High-Frequency Trading strategies and infrastructure in modern C++. Worked closely with traders. Developed and maintained strategies, position management and low-latency order management software.

**Optiver US, LLC** *Applications Engineer* **2011-2013**
Languages: Python, C#, C++
Ensured smooth functioning of trading infrastructure. Implemented realtime application monitoring using C++ and C#. Analyzed logs, generated reports for post trade day analysis and visualization for understanding trading infrastructure.

**Argonne National Laboratory** *Predoctoral Appointee* **2008-2011**
Languages: C, Python
Worked with the ZeptoOS team, wrote packaging and deployment modules. With the fault-tolerance research team, we investigated ways to implements policies for checkpoint/restart workflows. With MPICH2 team I investigated effects of node layouts in massively parallel machines on processing times.

**SAP Labs, India** *Development Specialist* **2004-2006**
Languages: ABAP
As part of the Suppy Chain Management software team, I wrote and maintained software called Site Logistic - Bill of Operations, for logistics of warehouses.

## TECHNICAL SKILLS

**Programming languages** : C++ (17/14), Python
**Libraries & Tools** : PyTorch, TensorFlow, Keras, scikit-learn, Pandas
STL, Boost, Qt, LaTeX, Eigen

## PUBLICATIONS


[1] **H. Naik** and D. Chattopadhyay. IPME Workbench: A Data Processing Tool for Mixed-Methodology Studies of Group Interactions. In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems*, CHI EA '19, pages LBW1517:1–LBW1517:6, New York, NY, USA, 2019. ACM.

[2] K. Yoshii, **H. Naik**, C. Yu, and P. Beckman. Extending and benchmarking the "big memory" implementation on blue gene/p linux. In *Proceedings of the 1st International Workshop on Runtime and Operating Systems for Supercomputers*, ROSS '11, pages 65–72, New York, NY, USA, 2011. ACM.

[3] P. Balaji, **H. Naik**, and N. Desai. Understanding Network Saturation Behavior on Large-Scale Blue Gene/P Systems. In *2009 15th International Conference on Parallel and Distributed Systems*, pages 586–593, Dec 2009.

[4] K. Yoshii, K. Iskra, **H. Naik**, P. Beckmanm, and P. C. Broekema. Characterizing the Performance of Big Memory on Blue Gene Linux. In *2009 International Conference on Parallel Processing Workshops*, pages 65–72, Sep. 2009.

[5] **H. Naik**, R. Gupta, and P. Beckman. Analyzing Checkpointing Trends for Applications on the IBM Blue Gene/P System. In *2009 International Conference on Parallel Processing Workshops*, pages 81–88, Sep. 2009.

[6] **H. Naik**. Parallelization of Community Identification in Dynamic Social Networks using MPI. Master's thesis, University of Illinois at Chicago, November 2008.