

# Ronak Kogta

## Interests

---

Operating Systems, Performance Optimization

## Projects

---

### A Few good sequences for HLS compilers [Jan-May 2013]

We present a practical approach to find good optimization sequences for hls generated hardware on per-program basis.

### Docklock [2014]

Zero-knowledge Docker Containers to provide one extra layer of security in cloud based hosting.

### Firefox OS Synchronization APIS [2014-15]

I worked with Firefox OS to create synchronization api layers to seamlessly sync data across multiple devices per application.

### RAMFs: A simple volatile filesystem [Completed]

In this project, we used FUSE to implement a filesystem in user-space, which was designed to use virtual memory space for all operations

### Pedestrian Detection [Independent Project, July 2010]

In this project, we used HOG/SIFT descriptors of an image to detect humans in images, with the use of linear SVM learning model. The goal was to build power-efficient detection system, and come up with good features of images

## Work Experience

---

### Openwall Summer of Security [Summer 2013]

Here, I worked on improving John the ripper support for AES encryption on OpenCL platform. Before that I worked on low level description of opencl code, and ways to tweak with it

### Research Assistant at CVEST Lab [2011-2013]

### Teaching Assistant [2011-2013]

1. Head TA, Operating Systems 2013
2. Head TA, Computer Networks 2012
3. TA, Modern Computer Architecture 2011

Build Engineer, **RENIAC Inc.** [2013-2014]

OS Engineer, **Mozilla Foundation** [2014-2015]



+91 9959064260



ronak.kogta@research.iiit.ac.in



http://researchweb.iiit.ac.in/~ronak.kogta/

## Education

---

- 2011 – 2013 **Master of Science**  
Parallel Algorithms, Computer Arch.  
*CVEST, IIIT Hyderabad*
- 2007 – 2011 **Bachelor of Technology**  
Computer Science  
*IIIT, Hyderabad*

## Achievements

---

- 2014,2015 *Winner of Local session of Docker Global Hackathon II & III*
- 2010 *Got an Scholarship for International Congress of Mathematicians*

## Skill Set

---

- Operating System *GNU/Linux*
- Languages *C,C++,Python,bash,golang*
- Environment *Vim,Eclipse,Emacs*
- Libraries *CUDA, OpenCL, OpenMP, Intel TBB*

## Research

---

- Workshop *HeMPA 2011, Hyderabad*  
*MSR Winter School for TCS, Hyderabad, 2012*
- Posters *Workshop in Hybrid Algorithms*  
*HiPC 2011, On Eigen Value computation using MPI for GPU and CPU*
- Papers *Retargeting Optimization Sequences from Scalar Processors to FPGAs in HLS compilers [FPGA 2015]*

## Hobbies

---

- Books *I like books on philosophy and fantasy, and read manga*
- Others *I like to run and listen to instrumentals*