Airport Road
Bangalore
☏ +91 9611800062
✉ raghavendra.d.prabhu@gmail.com
🖥 wnohang.net/about
in rdprabhu
🐦 randomsurfer
🐙 ronin13
GPG: D72BE977

Raghavendra Prabhu

Education

2004-2008 **B.Tech.**, *National Institute of Technology Karnataka, (NITK) Surathkal*, *GPA*. 8.74

Undergraduate thesis

title *Link-Based Object Classification and Ranking with unsupervised learning*

supervisors Dr. Santhi Thilagam

description Dealt with classification and ranking of web pages based on Link Mining and Self-Organizing Maps.

Research Interests

Linux kernel/userspace, Databases, Machine Learning, GPGPU, Distributed Computing, Data Mining.

Experience

Vocational

2013 - Present **Product Lead**, Percona LLC..
As the Product Lead of Percona XtraDB Cluster, involved in its development and releases.

2011 - 2012 **Senior Support Engineer**, Percona LLC..
Handled launchpad-related development work along routine consulting issues as well as supporting issues.

2008 - 2011 **Systems Engineer**, *Cloud Computing*, Yahoo! Research and Development, Bangalore.
Worked on memory mapped databases, replication, distributed hash tables and MySQL.I have implemented a readahead consumption of replication feeds for MySQL and an automatic failover implementation for database slaves among other things.

Internship

2007 - 2007 **Programmer**, *Indygo Software Systems*, Bangalore.
Primarily worked on an application of speech recognition to phones with JTAPI using CMU Sphinx and was challenging in terms of interoperability.

Publications

○ *SOMGPU: Self Organizing Maps on a Graphical Processing Unit for Pattern Classification*: Published at IEEE Congress on Evolutionary Computation (CEC) which was part of IEEE World Congress on Computational Intelligence (WCCI) 2008. *Cited by more than 10 publications.* dx.doi.org/10.1109/CEC.2008.4630920

○ *GNeuron: Parallel Neural Networks with GPU*: Presented at 14th International IEEE Conference on High Performance Computing (HiPC) 2007. hipc.org/hipc2007/posters/GNeuron.pdf
Individual author in both.

Skills

Languages C, Python, Perl, C++, Shell scripting, Haskell, LaTeX.
Operating Systems Linux, FreeBSD
Quite well versed in Linux kernel and GNU/Linux internals, virtualization platforms like KVM, VCS like git, bzr and hg, and also have worked on and contributed to several FOSS projects, also possess an intimate knowledge of MySQL internals (Galera/InnoDB/XtraDB), XtraBackup, Percona Toolkit, memory-mapped databases, and distributed hash tables.

Projects

For more/recent FOSS projects visit wnohang.net/code and ronin13.github.com
Percona XtraDB Cluster Have been responsible for several feature-rich releases of the product and architecting newer SST mechanisms.
Linux Kernel Involved in development of different areas of Linux kernel including but not limited to – filesystems (XFS, BTRFS), VM (Readahead), kbuild, security, I/O; many of which are upstream, testing them with KVM testing harness and finally, reviewing others' commits. My git tree is here `http://goo.gl/KFfjs` with corresponding topic/feature branches.
MySQL I have worked on areas like fallocate for InnoDB tablespace extension, increment for Innodb single tablespace (located at `http://goo.gl/pgly0`), and also made several contributions to Percona Server, Xtrabackup and Percona Toolkit.
Neural Cryptography Implementation involves synchronization of two TPM (Tree Parity Machines) for secure key exchange with faster convergence.
GNeuron Neural network library making use of GPU (Graphical Processing Unit) for parallel computation (GPGPU) with nearly 5x speedup over its sequential counterpart.
GPUSOM Pattern Classification with Kohonen's Self Organizing Maps (SOMs) on GPUs using Accelerator, first of its kind in GPGPU ecosystem.
Mushacadotnet Adds an additional degree of freedom to computer mouse. First of its kind. This makes use of RawInput Win32 API and MouseHooks and is useful in scientific simulations/visualizations.
Getmail Extended the mail delivery platform with a two-legged xoauth implementation; also fixed the ENOSPC handling with filesystems like ext4 and trimmed the fsyncs to reduce CPU load.
Mounty/Xail A Linux utility to manage plug-n-play external drives based on inotify and udev, and provision for custom mount configuration. Xail is a window manager written in python to provide toggle-based window switching with support for hooks.
STM An implementation of lock free solution to *Dining Philosophers* problem with Software Transactional Memory (STM).

Achievements

- Presented talks at professional conferences: database conference PLMCE 2013 and FOSS conference FOSDEM 2013.
- Won 2nd place in the event Mushaca, a three dimensional mouse design event. It is the first driver-less implementation of Mushaca.
- 2nd place in Verisimilitude, an algorithm competition conducted during Engineer '07, an annual university fest.
- Also received the IEEE CIS Conference Travel Grant in the year 2008.
- Authored a scientific essay on the nature of *Time and Entropy* titled *Your Time and My Time and Time*. This was part of *FQXi The Nature of Time* contest.
- Mention of my work in the newsletter of ACM Special Interest Group on Genetic and Evolutionary Computation - SIGEVOlution.
- Secured 9th rank in Karnataka Common Entrance Test (CET) for Engineering in 2004, in which more than a hundred thousand people compete.