

Manohar Vanga

Email: manohar.vanga@gmail.com

Website: www.manoharvanga.com

EDUCATION

- **Jawaharlal Nehru Technological University** 4th year B.Tech. (Computer Science); Percentage: 65%
- **Vasant Valley School** Schooling, 1992 - 2006; CBSE Syllabus, 12th Standard: 84%, 10th Standard: 86%

RESEARCH INTERESTS

My interests are in computer systems, especially operating systems, compilers, computer networks and distributed systems. I am a highly motivated student and am willing to work with all the knowledge, skill and energy that I possess in order to advance my knowledge and learning in the above areas. I am a quick learner and I can grasp new concepts and techniques easily.

SKILLS

- **Programming Languages** Fluent with C/C++/JAVA. Also familiar with Shell Scripting, Perl, Python, Ruby, LISP, Scheme, Prolog
- **Operating Systems** Expert Linux/UNIX user, Experienced Windows user, Considerable Linux administration experience
- **Other Computer Skills** CVS/SVN/Git Version Control Systems, L^AT_EX, Word Processing
- **Languages Spoken** English (*Fluent*), Hindi (*Fluent*), Telugu (*Fluent*), Italian (*Basic*)
- **Miscellaneous** Guitar player for 7 years, Learned classical indian carnatic music for 8 years

INDIVIDUAL PROJECTS

- **MiniOS** MiniOS is a miniature operating system that I created for my own educational purposes. It consists of a boot loader, a kernel that sets up the CPU, basic screen functions, a keyboard handler and a timer handler.
- **TinkerOS** Tinker is an operating system that I wrote to be used as an educational tool in undergraduate courses, similar to Nachos [1] and GeekOS [2]. It aims to provide students with a thorough understanding of the code of Tinker so that they can easily extend it and experiment with it.
- **SubC** SubC is a compiler for a C-like language that was implemented from scratch using Java. It generates unoptimized assembly code that can be readily compiled by NASM (Netwide Assembler) [3].
- **Tiny (Compiler and Interpreter)** Tiny is a small expression-based language whose statements consist of assignment, integer input and screen output statements. I have implemented a compiler and an interpreter for Tiny in Java.

COLLABORATIVE AND OPEN SOURCE PROJECTS

- **Twincling Scano** Scano [4] is an open source Source Code Annotation software that I helped prototype in collaboration with the Twincling Technology Foundation [5].
- **MiniServ** MiniServ is an open source, minimalistic and lightweight web server that I authored. Its original purpose was to serve various documentation files on the college network. It has a tiny memory footprint of 14k!

ONGOING AND FUTURE PROJECTS

- **MMOG Framework (design stage)** This is a distributed framework for the deployment of massively multi-player online games. Both client and server will be written.
- **Porting of S.H.a.R.K. real-time kernel to the ARM architecture** This will be done at the University of Pavia, Italy [6] under Prof. Tullio Facchinetti and Prof. Alessandro Rubini (during the period of December 2009 to April 2010).

MISCELLANEOUS ACTIVITIES

- **Open Source Community Lead** I am a community lead for the Twincling Technology Foundation, Hyderabad. As a community lead I help community members adopt open source solutions. I also help in organizing events held by the Twincling Technology Foundation.
- **Linux User Group** I am an active member of the Twincling Linux User Group (now the Twincling Technology Foundation), Hyderabad. I have attended various technical talks by community members for over a year.
- **Open Source Summit 2008** I was one of the team leaders that helped organize the Open Source Summit 2008 [7] involving technical talks by various representatives from open source companies and products such as BeleniX, Git, Hadoop, Gentoo, OpenSUSE, C-DAC and Intel.
- **Mentoring Experience** I am currently mentoring three students in developing the MiniServ web server further.

REFERENCES

1. Not Another Completely Heuristic Operating System, <http://www.cs.washington.edu/homes/tom/nachos/>
2. GeekOS, <http://geekos.sourceforge.net/>
3. Netwide Assembler, <http://www.nasm.us/>
4. Twincling Source Code Annotator (Scano), <http://twincling.org/scano>
5. Twincling Technology Foundation, <http://twincling.org/about>
6. University of Pavia, Italy. Computer Engineering and System Science, http://dis.unipv.it/home_eng.html

Last updated on 8th October, 2009