

# Niranjan Nagaraju

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CONTACT INFORMATION      No. 83, H. Colony,  
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CAREER INTERESTS      Algorithms Design and Optimization  
TCP/IP Networking  
Cryptography - Algorithms and applications to network security

EDUCATION      **Visvesvaraya Technological University**, PES Institute of Technology, Bangalore  
*Bachelor of Engineering*, Computer Science      **2002 – 2006**  
Aggregate: 73.3 %

TECHNICAL SKILLS      Programming Languages: C, C++, Python, Haskell, Linux Shell scripting (Bash)  
Tools: Oprofile, Valgrind, W3af, GDB, Vim, Emacs  
Operating Systems: Windows, Linux, Mac OS X  
Github: [Link to Github Profile](#)

PROFESSIONAL EXPERIENCE      **5.6** years of design and development experience in System Programming, Security,  
Device driver development and TCP/IP Networking.

## **RSA Security**, Bangalore

*Software Engineer*

**October 2010 – Present**

### *RSA Access Manager (AxM) Web Agents*

- Implemented features for Intersite Single Sign-on (ISSO), Securing against arbitrary URL redirects (trusted domains).
- Security audit of AxM Web agents using w3af/webscarab, Fortify and fixed critical security issues.
- Worked on extending AxM Web Agents to support Email-based RSA Adaptive Authentication.
- Responsible for fixing high-priority customer issues.

## **Narus Networks**, Bangalore

*Software Engineer*

**June 2008 – March 2010**

### *Multi-threading processing layer*

- Worked on the development of an actor-based concurrent programming language to introduce multi-threaded efficiency in the processing layer.
- Implemented Input/Output modules to be used in the new language dialects.
- Profiling and performance tuning (Oprofile and Valgrind)

### *SQL Loader*

- Developed a Narus component to load capture layer metadata into an SQL database using unixODBC library.

### *Packet Loader*

- Developed a Narus component to analyze capture layer events/data based on user-configured targets and write the matching packets to PCAP and ETSI compliant Metadata files.

### **CoreEl Technologies**, Bangalore

*Design Engineer*

**July 2006 – June 2008**

#### *TOE (TCP/IPv4 Offload Engine)*

- Developed a network device driver interface to load the PCI-e based hardware stack.
- Design and implementation of a dual stack architecture for the TOE stack to coexist with the Linux TCP/IP stack.
- Implemented ICMP echo (Ping) and ARP handling modules in software.

#### *TIP6E (TCP/IPv6 Offload Engine)*

- Designed and implemented ICMPv6 NDP (Neighbor Discovery Protocol) and MLD (Multicast Listener Discovery) in software to be integrated with the rest of the IPv6 stack in the TIP6E hardware FPGA.

#### *RPR (Resilient Packet Ring)*

- Implemented IOCTL interfaces for configuring the RPR stack in hardware. (RPR is a dual-ring based MAN (Metropolitan Area Network) technology).

### CORPORATE TRAINING

**Sandeepani School of VLSI Design**, Bangalore    **December 2006 – March 2007**

Taught C fundamentals and Data structures courses at Sandeepani, a corporate training division of CoreEl Technologies.

### INTERNSHIP

**Hewlett Packard**, Bangalore

*Gelato Vanilla Project/Apache*

**February 2006 – April 2006**

Benchmarking and profiling the performance of Apache server on Linux/Itanium.

### ACADEMIC PROJECTS

#### *S.M.A.R.T. Downloader*

- A download Manager written in C#.net with zip preview, media preview, FTP support, auto-resume and concurrent multi-part download capabilities.

#### *Illuminati*

- An MS Paint like graphics editor program written in C/GTK+ on Linux.

### REFERENCES

Available upon request.