

Shreyas Bhatewara

2200 Waterview Parkway, Apt #26202
Richardson , TX 75080

shreyas.bhatewara@yahoo.com

214-957-5643

<http://utdallas.edu/~shreyas.bhatewara>

Objective :

Seeking an opportunity to leverage my education & experience to obtain a full time position in your respected company.

Education :

Master of Computer Science GPA : 4.00/4 Aug 2007 – July 2009

University of Texas at Dallas, USA

Courses completed: Design and Analysis of Algorithms, Advanced Computer Networks, DBMS, Advanced Programming Languages, Software Architecture and Design

Courses Taken : Advanced Operating Systems, Algorithms in Telecom Networks, Network Security.

Bachelor of Engineering, GPA : 3.59/4 Aug 2002 – June 2005

Computer Engineering,

Pune Institute of Computer Technology, Pune, India.

Diploma in Computer Engineering, GPA : 4.00/4 Aug 1999 – June 2002

Cusrow Wadia Institute of Technology, Pune, India.

Work Experience :

Vmware, Inc., Palo Alto (www.vmware.com) May 2008 – Dec 2008

Member of Technical Staff Intern

Software developer in Virtual Devices team. Working with VMCI (Virtual Machine Communication Interface) and PVSCSI (ParaVirtualized SCSI device) on Linux, Solaris and VMKernel

Great Software Laboratory (www.gslab.com) July 2005 – July 2007

Member of Technical Staff

Systems software development related to Networking and Operating Systems

Projects:

IPv6 Mobility support (RFC 3775):

Development of a IPv6 mobility solution for our client – PIANO networks. The server and client based solution allowed a client to be accessible at an IPv6 address (Home Address) irrespective of its actual IPv6 address (Care-of-address) allotted by access routers.

NIC driver for Solaris 10 :

Ported a device driver for a proprietary 10 Gbps NIC to Solaris 10, Intel. This involved understanding of Linux driver, Solaris Device driver, DDI/DDK, streams programming and driver's interaction with firmware through PCI Express interface. Also worked on tuning the driver for performance, using Sun profilers DTrace, lockstat, kstat and mpstat to extract maximum throughput and minimum latency.

Preboot eXecution Environment support :

The project involved writing a NIC driver for Etherboot so that the system could boot using a Linux kernel image hosted by a TFTP server remotely. Played role in upgradation and maintenance of the said driver.

RDMA support for LAM/MPI :

Developed support for Remote DMA in MPI (Message passing interface) library to replace TCP/IP as communication protocol among nodes in a distributed system.

Event Notification support :

Added event notification support in LAM/MPI library which was earlier based on polling mechanism. Involved use of wait queues in kernel space and select/poll mechanism from user space.

Making RNICPI threadsafe :

Worked with a implementation of RNICPI to make it threadsafe. Used spinlocks and mutexes to do so. Involved changes in kernel module as well as user space libraries. on a multi-core, multi CPU system.

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Academic Projects :

OPNEAR Lab : Worked on a research project changing TCP and Wireless MAC (IEEE 802.11) behavior to improve performance of network traffic.

MS Spring 08: KWIC Microminer : A web crawler along with keywords searching support in hyper-links obtained. Java Servlets, Oracle SQL, HTML. Completed the project with the extra credit part.

MS Fall07: Flat header implementation for wireless networks. C++, Tcl, NS2
For Advanced Computer Networks, replaced the TCP/IP layer of NS2 for wireless networks with our own flat header protocol. This flat header provided reliable FIFO communication and RTP capabilities.

MS Fall07: Design and implementation of a database system for Online securities trading system.

Bachelors final year Project : FITH Driver Verifier : Use of Fault Injection Test Harness in Linux Device Driver Verification - Linux Kernel 2. 6. 9, QT3 designer

- A tool for verifying operation of a device drivers against all the standard do's and don'ts
- Could detect misuse of system resources by driver, Eg : if memory not deallocated before driver unloads, mutexes are not release before driver unloads, buffer overflow.
- Supported fault injection to simulate h/w error, eg: masking ready pin of printer as always set/reset.
- Implemented using light weight wrappers around kernel functions and kprobes
- When the wrapper code gets the control it back traced the kernel stack to identified if it was called by a driver under verification

Diploma 6th Sem : Online Examination Management System – Oracle 8.0, VB6.0, ASP

- A system to manage online examinations
- This system was deployed at Computer dept. of CWIT to conduct mid-semester exams

Skill Set :

Programming Languages: C , C++, Java, SQL(Oracle), COBOL, Lisp, ML, Prolog
VC++, HTML, DHTML, ASP, PHP, Shell scripting, J2EE

Tools : Wireshark, Dtrace, SVN/CVS/Perforce systems, GNU make and system

Microprocessor arch.: 8085, 8086, 80386, 8051 Micro controller.

Operating Systems: MS- DOS, Unix. Linux and Solaris – Kernel and user space programming.

Fields of Interests: Computer Networks, Distributed/Cluster Computing, Operating Systems, High performance computing and storage.

Academic achievements/awards :

- Secured a rank of 357 among 17467 candidates appearing for 'Graduate Aptitude Test in Engineering' (GATE-2007) for Computer Science. GATE is organized by IITs as a entrance exam for M.Tech. course in IITs.
- Stood first in CWIT College in all five branches in Diploma Final year among 300 students - 2002
- Got 'Narsee Monjee Best project prize' for “Online Examination Management System” - Diploma final year project - 2002
- Got 'Second best project in Systems category' prize for 'Linux device driver verifier' at 'Impetus' project presentation competition, PICT- Pune – 2005 and at Genesis – Inter college project presentation competition among 40 projects presented, Bharti vidyapeeth – Pune - 2005

Extra Curricular Activities :

- Member of technical committee of Indian Students Association (ISA) at UT Dallas (www.utdisa.org)
- Worked part time as a computer technician in University's library for two semesters (Fall07, Spring08).
- Conducted Linux hands-on workshops for SE and TE students.
- Organization of Medha – A Seminar and workshop series in I&C 2003, 2004
- Represented my class and company in intra-college/Inter-companies cricket tournaments

Availability : Aug 2009