12806 NW Milazzo ln
Portland, OR-97229

USHA KETINENI

Phone: (503) 317-2678
E-mail: usha@us.ibm.com

SUMMARY Over 5 years of experience in Linux kernel development with comprehensive implementation skills and technical support experience with proven ability to rapidly troubleshoot, diagnose and resolve complex technical issues. Areas of expertise include Linux kernel, filesystems, NFSv3/v4, networking, memory management, open source software, Linux administration and virtualization.

EDUCATION **M.S. Computer Science, Portland State University,** Portland, Oregon**.** **Aug 2004**

B.S. Andhra University, Waltair**,** India**.** **May 1999**

WORK EXPERIENCE **IBM Global Technology Services**, Beaverton, Oregon. **April 2009 – Present**
VMware ESX Support Consultant via CTG

- Troubleshooted and resolved critical customer issues in the live production data center virtualized environment.
- Interfaced with the customers remotely to provide advanced support, failure analysis and ensured SAN, networking, vCenter, VCB, service console, management agents, ESX VMkernel and IBM servers work efficiently to provide optimal performance to the customer's whole infrastructure.

IBM Linux Technology Center, Beaverton, Oregon. **Jan 2005 – Feb 2009**
Software Engineer

- Screened, debugged and resolved system x, i, and p series Linux defects.
- Worked with Linux distros and internal teams to ensure timely fixes and inclusion of patches in the releases.
- Managed and prioritized huge bug backlog in enabling timely release of Linux Distributions.
- Linux Crit sit focal point of contact for resolving critical problems reported by IBM external customers. Accelerated bug fixes reaching customers by working with development teams in Linux Technology Center and distros.
- Organized 15 Linux education classes to internal teams in IBM to enhance skills and work efficiency.
- Designed and developed NFSv4 server-side security negotiation protocol to enable automatic negotiation of security mechanisms between client and server. This feature is integrated and being used in the mainline kernel
- Debugged and resolved NFS issues reported against Linux distribution releases and mainline kernel in IBM defect tracking tool.
- Tested automounter functionality in NFSv4 test matrix to identify functional gaps and facilitate Linux community.
- Verified NFS features in distribution kernel releases, reported defects and delivered fixes.

IBM Linux Technology Center, Beaverton, Oregon. **Jun 2004 – Aug 2004**
Speed team Intern

- Involved in design and preliminary development of NFSv4 server-side security negotiation protocol which allows automatic negotiation of security mechanisms between client and server in Linux kernel 2.6. Presented technical talks on this feature to IBM executives.

Portland State University, Portland, Oregon. **Sep 2003 – April 2004**
Graduate Teaching Assistant for a graduate course in Networking.

Paradigm Infotech Inc, Hyderabad, India. **May 1999 - June 2001**
Software Engineer

- Designed and developed generic newspaper product for online hosting. Technologies used to develop this site were JSP, Servlets, XML, Document Object Model (DOM), Xerces Parser, Tomcat and Apache Web Server on LINUX. XML used for storing the data, which is generated dynamically by servlet programming. Client side pages retrieve data from dynamically created XML files using DOM.
- Designed, implemented and tested printing application meant for corporate entities to facilitate the customization and ordering of United Business Products (UBP). Utilized Servlets, HTML, DHTML, JavaScript and JDBC on Windows NT OS.

ACADEMIC PROJECTS

- Involved in porting the Berkely packet filter and top-N linked list-based flow counter on to the 1. IXP 2400 system and 2. porting the OURMON code as LINUX kernel module in kernel. OS: Linux, Windows Coding: IXP programming, kernel programming.
- Implemented a packet counter/filter to monitor top-N TCP/UDP ports in use for OURMON as part of Network Lab project. OURMON is a network analysis and monitoring tool (more information at http://network.cat.pdx.edu/ourmon) OS: FreeBSD 4.7 Coding: C, Perl.
- Implemented a LINUX loadable kernel module for the OURMON front-end probe as a team project. Was involved in implementing the configuration compiler and the file I/O in kernel. OS: LINUX Coding: C, Kernel Module programming.
- Designed and implemented multi-threaded web server and client using POSIX threads. Implemented a mutex-lock synchronized request queue that is accessed by different worker threads. Optimized the data transfer between the web client and web server when they both reside on the same machine using shared memory and message queues. OS: Solaris 5.9 Coding: C
- Designed and implemented simple FTP client capable of communicating to any FTP server on Internet. It uses TCP as underlying transport protocol for reliability. OS: Solaris 5.8 Coding: C
- Designed and implemented a reliable transport protocol on top of UDP (User Datagram Protocol). Features include adaptive transmission timer, checksum mechanism, sequence number mechanism and test bed mechanism for injecting flaws. OS: Solaris 5.8 Coding: C
- Implemented a compiler for PCAT (Pascal Clone with an Attitude). Features include the implementation of lexical analyzer, recursive descent parser, and type checker. OS: Solaris 5.8 Coding: C

COMPUTER SKILLS

Operating Systems	:	LINUX(5+ years), Sun Solaris, DOS, FreeBSD, Windows 9x/2000/XP
Embedded programming	:	Intel IXP 2400 network processor card
Languages	:	C/C++, Java, Perl
Virtual Environment	:	VMware ESX3.5, VC2.5
Databases	:	Oracle, SQL Server, MS Access
Web Programming	:	HTML, XML, JSP, JavaScript
Kernel programming	:	NFS, RPC, TCP/IP, Networking

GRADUATE COURSES

- Internetworking protocols
- TCP/IP Internals
- Network Management and Security
- Operating Systems
- Linux kernel Internals
- Theory of computation

- Computer Security
- Cryptography
- Programming languages
- Software Engineering
- Implementation of Database Management Systems
- Human computer Interaction

AREAS OF INTEREST

Linux Kernel development, Networking, Operating Systems, Database management, Security, and Virtualization