

Sridher Jeyachandran

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Profile

- Dynamic, & quick learner who has worked on a variety of platforms starting from display-less embedded systems to highly scalable clusters.
- Innovative and enthusiastic individual with a couple of interesting projects and publications.
- Interests: Scalable Systems, Computer Networking and Operating Systems.

Keywords

pthread, synchronization, TCP/IP, NAS, cpu scheduler, memory scheduler, oncrpc, buffer overflow attack, ptrace

Computer Skills

OS Internals : Good understanding of Linux and FreeBSD internals

Languages : C, C++, Java, J2ME, SQL, nesC

Scripting Languages : Python, JavaScript, Shell Script, ASP.NET

Platforms Used : Linux, ESX Server, FreeBSD, Tiny OS

Packages : OPNET, WireShark, VI Client

Debugging Skills : gdb, .NET

Technologies/Protocols: NAS, Clustered ONTAP, Simple Management Framework, TCP/IP, UDP, OSPF, RIP, BGP, Ajax

Professional Experience (2+ years)

Netapp, Sunnyvale, U.S.A

Member of Technical Staff

July 2008 – Till date

File Metadata Search

C/C++, Clustered ONTAP

- Worked on a new File Metadata Search product that is capable of searching files in clustered storage servers.
- Designed parts of this distributed metadata search engine involving failure-handling, synchronization, communication between various instances in the cluster.
- Prototyped various parts of the engine which along with my teams' work helped productize the idea.

University of Southern California

TA, Security Lab

Aug 2007 - May 2008

- Conducted lab experiments on Buffer overflow attacks, various Spoofing attacks, firewalls, IDS.

R&D, VMware, Inc., Palo Alto, U.S.A

Student Intern

May 2007 - Aug 2007

ESX Server - Resource Management

ESX Server, SPECJbb05

- Designed & conducted various customer-oriented experiments to analyze the performance of various features of ESX server – Page Sharing, Ballooning, Internal Swapping, External Swapping, NUMA, Co-Scheduling.
- This white paper ended up as a part of the paper titled 'VI3 Resource Management and DRS' presented in VMworld 2007.

Veveo India (Pvt) Ltd, Bangalore, India

Member of Technical Staff

Jan 2006 – May 2006

Live Score Alert for Set-top Box

VC++, C, Javascript

- Designed and coded the 'Alert' feature which overlays the live scores of games (NBA, NFL) on the television as a marquee.
- Coded part of the intermediary between the C API and the UI implemented in Javascript.

Video/Audio Clips Crawling

Python

- Wrote scripts that crawl video and audio clips from media content rich websites like real.com.

R&D, MindTree Consulting Services, Bangalore

Programmer Analyst

July 2005- Nov 2005

BlueTooth Logger

Embedded C

- Developed a printf like logger mechanism using macros that runs on a display-less embedded platform which pushes log messages to a computer from where the developers can view it.

Novell Technologies (Pvt) Ltd, Bangalore

Student Intern

Nov 2004 -April 2005

Novell ZENworks Automation Framework

Python, Java, Winrunner

- Researched, analyzed & implemented the right testing framework for Novell ZENworks 6 and test automation suite for a specific module of it.

Projects

Process Restarting

C (Linux), ELF utilities

- Implemented a utility that can restart a process from a core dump.
- Restores registers, various memory segments including data, bss and stack segments from the core.
- Implementation uses ptrace system call and code insertion techniques.

NoQ for S60 Platform

J2ME, MySQL, Glassfish, J2ME Polish

- Novel & revolutionary mobile application for short-term scheduling/tokening system.
- A **complete scalable product** with its own data base server, web server, and J2ME polish UI client.
- Tried productizing it through Stevens Institute for Innovation in USC.

Light Sensing Wireless Sensor Network

C++ (Linux), nesC (TinyOS)

- Implemented a light sensing WSN using motes board.
- Support for coordinating multiple sensors, robust error handling & meta-data handling.

Smartcard

C, OpenSSL

- Implemented a shared smartcard library providing the following services - digital signature generation, secret key generation, public key returning.
- Implemented interfaces that interact with the Smartcard shared library to digitally sign a file, to obtain secret keys for encryption and decryption using triple-DES, and to verify a digital signature.

Router experiments

Cisco Routers, Zebra

- Reproduced the intra-AS BGP routing oscillations.
- Implemented blackholing, sinkholing and traceback techniques for preventing DDoS attack.
- Implemented a lab experiment that studies the interaction of long TCP flows to short flows, effect of UDP traffic on TCP and service differentiation in TCP.

Projects on S60 Platform (Symbian)

J2ME,WSDL,JSR 82/179/135

- GeoTagging application
Implemented an application that can be used to take pictures, store it with the GPS coordinates in a backend server and retrieve them whenever required.
- Bluetooth chat application
Implemented a text chat application which is also capable of sharing images between two mobiles supporting S60 platform.

Education

MS-CS, University of Southern California, Los Angeles, CA; Fall 2006-May 2008

3.96/4.0

BE-CS, P.S.G. College of Technology, Coimbatore, India; 2001-2005

9.11/10.0

Publications

Multiple Domain Orientation – A Theoretical Proposal for Storage Media, published in International Journal of Magnetism and Magnetic Materials 278 (2004) 367-372, Elsevier Publications.