

Narasinha Kamat

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OBJECTIVE: To obtain a full time position in software development and testing. I am seeking a job that will utilize my technical skills and team spirit and enable me to contribute to the design, development and testing of software while giving me an opportunity to learn more.

EDUCATION:

Master of Science in Computer Engineering. GPA: 3.55 / 4.0
University of Florida. **Dec 2002**

Bachelor of Engineering in Computer Science. Equivalent GPA: 3.67 / 4.0
University of Mumbai, India. **Aug 2000**

WORK EXPERIENCE:

- **Graduate Technical Assistant** at the Career Resource Center in the University of Florida. Developed web applications using ASP and client applications using Visual Basic, using MS-SQL Server as the backend for both. Setup computers, installed network components on the machines, and carried out maintenance, May 2002 – Dec 2002
- **Teaching Assistant** for undergraduate “Survey of operating systems” and “Ethics on the Electronic frontier” courses. Taught classes, prepared and graded assignments and exams. Jan 2002 – May 2002.
- **Instructor** for undergraduate “Survey of operating systems” course. Independently taught a class of 45 students, prepared and graded the class exams, and assigned the final grades, Aug 2001 – Dec 2001.

RESEARCH: Designed and implemented a **delay-efficient rerouting** mechanism for **Voice over IP** communications using **dynamic route selection** and **call admission control** techniques. Studied the different, currently used techniques in VoIP and developed a technique to ensure better **QoS** in such applications. It dealt with **rerouting** of voice calls, implementation issues and the feasibility of such a scheme. Also developed a probing mechanism for determining network conditions. Used network-programming techniques to set up **multiple sessions** and **route/reroute** the call packets through routes that are best suited to maintain the QoS of calls for the entire duration.

PROJECTS:

- **Bookstore Management:**
Designed and implemented a store inventory and sales system using C++ to automate all the sale and purchase activities of a bookstore. The system keeps track of the number of books in stock; prints out order forms, invoices, handles employee records, etc.
- **Banking system implementation:**
Designed and implemented a banking system in C++. Worked as part of a team of three in implementing a user interface for users and administrators that can handle all the activities of a bank like creating user accounts, modifying accounts, handling daily transactions and some other basic administrative work
- **Online registration Process for Career Fairs:**
Designed and implemented an online registration system for the Career Showcase organized by the University of Florida’s Career Resource Center. Designed the **MS-SQL Server 2000** database for the application. The website allows companies to create and modify accounts, register contacts, register for the career fair and make payments online using **ASP**.
- **Compiler for TINY:**
Developed a compiler in **Java** for the TINY language (a subset of C) as part of a team of two. Implemented a lexical analyzer, parser, constrainer and code-generator for the language. The compiler can handle all the normal arithmetic expressions, conditional constructs, variable declarations, and pointer arithmetic. The compiler generates machine independent **JVM** code for the input programs during the last phase. It involved writing over **5000 lines of code**.

- **Unix System Administration:**
Set up and administered a UNIX-based network consisting of SUN-Netra and IBM-AIX machines. Installed the machines and set up the network, installed a variety of system software, setup DNS servers, mail servers, NFS, web servers, virtual interfaces and backups.
- **Administrative Interface for Company Registration:**
Developed a client application using **Visual Basic** and **MS SQL Server 2000** as part of a team of two at the Career Resource center at UF. It aids the administrators at the CRC to handle all the information that the companies submit online for the career fairs. It also allows manual registration of companies that email data, editing registration information and payment options.
- **Online WebSponsorship:**
Designed and implemented the part of the Career Resource center website that allows companies to register for the websponsorship program that is offered by the CRC. It allows companies to register their contacts, specify the details of the websponsorship request, make online payments using credit cards and create user accounts for future use. Used **ASP** with **MS-SQL Server 2000**.
- **WEBLIB:**
Designed and implemented an online library management system using **Java Servlets** with **Sybase** as backend. Implemented a servlet-served library website that the users can access to search for books, renew issued books, make online reservations, buy books from the online library store, etc. Also implemented an interface for administrators to manage inventory and employee details.
- **Reliable ARQ on UDP:**
Developed a network protocol simulation in **Java**. It consists of a client server communication implementing the **GO_BACK_N** protocol. The server handles packet sequencing, lost packets, retransmissions and timeouts. Clients can send back acknowledgements. The system uses multiple threads in both client and server to handle several simultaneous connections.
- **Secure communication for an IDS:**
Set up a secure communication system for various components of an Intrusion Detection System (IDS). Implemented detectors to send reports of unusual network activity to monitors. The system authenticates the detectors to the host monitors and vice-versa, by making use of **Public-Key cryptography**. It also performs a secure exchange of a session key for an AES algorithm to be used for further session communication.

COMPUTER SKILLS:

Programming Languages : C++ C Java (Network Servlets JDBC RMI) ASP Pascal SQL HTML.
Operating Systems : Windows XP/2000/NT/98 Sun-Solaris Linux.
Databases : MS-SQL ORACLE Sybase MS-Access.
Other packages : MS Visual Basic J-Script MS Office.

COURSEWORK:*Graduate:*

Computer Communications Networks, Software Testing & Verification, UNIX System Administration, Computer and Network Security, Distributed Operating Systems, Database Management Systems, Programming Language Principles, Computer Architecture Principles, Analysis of Algorithms.

Undergraduate:

Software Engineering, Object Oriented Programming, Computer Graphics, Data communication, Digital Signal Processing, Systems Programming, Operating Systems, Artificial Intelligence, Robotics.

REFERENCES: Available on request.