

OBJECTIVE

Looking for a full time C/C++, Java developer position which challenges my abilities in roles both as an individual and a team contributor and helps succeed the organization's growth.

AREAS OF INTEREST

Software Application Development- Emerging Technologies, Distributed Systems, File Systems, Performance Analysis- Coding / Debugging, Mobile and Pervasive Computing, Operating Systems.

EDUCATION

M.S. in Computer Engineering **AUG 07 - DEC 08**
University of Florida, Gainesville. GPA 3.5/4.0

Bachelors in Electronics Engineering (Honors) **AUG 02 - JUN 06**
Rajiv Gandhi Technical University, India. GPA 3.9/4.0

RESEARCH ASSISTANT

Computer & Information Science & Engineering, University of Florida **JUN 08 - PRESENT**

- Analyzed large volume of raw data, designed a normalized relational schema
- PHP scripts; filters parsers, regular expressions, Remote databases, PostgreSQL package

WORK EXPERIENCE

Developer at Sensors Technology Pvt Ltd **JUL 06 -MAR 07**

- Developed online real time data acquisition system (DAC) software for environment monitoring
- Involves RS-232 interfacing, data handling- analysis- filtering, multiple real time graph modules

Co-Authored Paper:

Shyam Sunder Tiwari, Akash Tiwari, Nitin Suri; "Telemetry for Environmental Radiation Monitoring", National Conference on Radiation Exposure Control at Nuclear Fuel Cycle Facilities and Radiation Installations (Indian Association for Radiation Protection, IARP-NC 2k6), Indira Gandhi Centre for Atomic Research, Kalpakkam, India

INTERNSHIP

Developer at Indian Institute of Technology, Kanpur **MAY 06 - JUL 06**

- Developed software; filtering objects in video captured through a surveillance camera
- Modules; Object scanner, plots dimensions, comparison of results with stored data sets

SKILLS

- **Language** C, C++, Java, J2ME Micro Edition
- **Web Technologies** HTML, CSS, PHP, ASP.NET, JSP
- **N/W Protocols** TCP/IP, UDP protocol suite
- **Database** MySQL, Oracle, PostgreSQL
- **Tools** Eclipse, Dreamweaver, Microsoft Visual Studio
- **Platforms** Windows 98 / 2000 / XP / VISTA, UNIX
- **Web Servers** Apache, Tomcat

PROJECT EXPERIENCE

DATABASE SYSTEM IMPLEMENTATION- Team Project

Single User Database Management System- Object oriented design and development skills

- **Heap file manager**
 - Encapsulation of single file management in a database system
 - Functionalities – Fetching first record, next record, bulk loading data
- **Sorted file manager**
 - Two phase multi-way merge sort, disk based priority queue
 - Functionalities similar to heap, much faster for querying and slower for updates
- **Relational operations and query optimizer for optimal query PLAN**
 - Operations- Select, Project, Join and Duplicate removal
 - Sorted merge join, nested loop join, maintained large software product architecture

DISTRIBUTED OPERATING SYSTEMS - Individual Project

Protocols, Message Handling, Client – Server, RMI - Multithreading

- **Distributed Group Management Protocol - IP Multicast/ UDP**
 - Group leader selection, individual join/leave requests, “Heartbeat”, majority voting “bully algorithm”
 - Concept of “security key”, “leader key”, “group key”, partial security in the group
- **Gossip Protocol- Data and File Replication (DFS)**
 - Increased system performance, high availability in distributed systems
 - Read, update operations, file service agent (FSA) to replica manager (RM)

DATA STRUCTURE & DATABASE MANAGEMENT SYSTEMS- Team Project

- **Performance Evaluation- Priority Queue Data Structures**
 - Min binomial heap, leftist tree and min heap
 - Comparison model for performances with large data inputs
- **Biblis – Reference Management System**
 - Managed references of research papers, books, articles, categorized by user projects
 - Flexible multi-level search facility inside projects, and used MySQL, Oracle packages

COMPUTER NETWORKING, MOBILE COMPUTING, PLP -Team Project

- **Compiler**
 - Scanner / Lexical Analysis- breaks pieces of code into tokens, Finite State Automata constructed to recognize the language
 - Parser (top down recursive) / semantic Analyzer and code generator for PICO language
- **Mobile Networking/ Pervasive Computing**
 - Emulator based J2ME client- Proxy – Network resource- Google Health API interaction
 - Pervasive Computing model / Thin Client Implementation for health application
- **P2P file sharing software**
 - choking-unchoking, handshake, interested-notinterested, bitfield, request, piece mechanisms
 - Random selection strategy, used in many bit torrent software’s