

# Ghanashyam Namboodiripad

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**Objective:** To seek a position in software design and test that utilizes my skills in object oriented design, development of complex systems and automated testing.

## Summary of Qualifications:

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- Proficient in C# (.NET), C++ and C programming languages and object oriented principles
- Two years of work experience designing and developing software in a large organization
- Expertise in design and development of distributed applications and in test automation

## Technical Skills and Experience:

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<b>Languages:</b>	C# (.NET), C++, C, Java	<b>Web Development:</b>	ASP .NET, ASP, DHTML, JavaScript
<b>Platforms:</b>	Microsoft Windows, Sun Solaris (UNIX), Red Hat Linux, Apple MAC OS X		
<b>Technologies:</b>	TCP/IP Sockets, Java Threads, UML, XML, XSLT, XPath		
<i>.NET</i>	Component Technology, Threads, Remoting, Web Services, Winforms, User Interface Controls, Reflection, COM Interop, ADO .NET, FxCop SDK		
<i>Windows</i>	Win32 Threads and Synchronization, COM, ATL, ActiveX Controls		
<i>Sun Solaris</i>	POSIX Threads, Solaris Threads, Message Queues, Shared Memory, X Windows Programming		
<b>Databases:</b>	Microsoft SQL Server (Windows), FileMaker (MAC), Sybase (Solaris)		
<b>Tools:</b>			
<i>Windows</i>	Visual Studio .NET, Visio, IIS, Rational Rose, CVS Version Control System, NUnit, NAnt, FxCop		
<i>Sun Solaris</i>	Sun Workshop, dbx Debugger, SCCS Version Control System, Rational Purify, Rational PureCov, Rational Quantify		

## Work Experience:

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**Tata Power Company Limited – Research & Development Department**, Bombay, India  
Software Engineer (July 2001 to July 2003)

- Designed and developed multi-process and multi-threaded distributed applications incorporating TCP/IP Sockets, message queues and shared memory based communication in C and C++ on Sun Solaris
- Designed object oriented software in C++ using UML, Rational Rose and Rational Unified Process

## Academics:

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**Master of Science – Computer Engineering** (August 2005)  
Concentration: **Software Design**  
Syracuse University, New York

**GPA: 3.94 / 4.0**

**Bachelor of Engineering – Electronics** (June 2001)  
Ramrao Adik Institute of Technology, Bombay University, India

## Relevant Coursework:

- Software Modeling and Analysis (C# .NET)
- Design of Operating Systems
- Software Engineering Studio
- Message Parallelism in Java
- Object Oriented Design (C++)
- Compiler Design
- Distributed Objects (COM)
- Internet Programming

## **Work Experience Projects:**

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### **Decision Support System (C – Sun Solaris)**

Led two teams (Initialization and Communication) in the successful design and development of a dual-redundant distributed decision support system. The system collected data from several remote sensors and provided decision-making tools that used this data. The project incorporated TCP/IP sockets communication, multiple processes, multithreading, message queues, shared memories and Sybase databases to implement this complex system that is now in service.

### **Sensor Simulator System (C++ – Sun Solaris)**

Successfully designed and developed parts of a simulator system for mimicking the above-mentioned remote sensors. This simulator system enabled testing the decision support system in an automated fashion. I also designed and developed a robust and reusable TCP/IP Sockets class library for this project. This library is currently being used in projects across the company.

## **Academic Projects:**

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### **Project Center (C# – .NET, MS SQL Server)**

Led two teams (Security and Database Management, Installation) in a class project where a group of twenty students successfully developed a software product - Project Center. The goal of the project was to build a flexible and extensible client-server system that could support pluggable software development tools (eg. change log, bug tracker). Project Center provided services (eg. database access, message passing communication) that tools plugging into it could use. Users of Project Center could thus quickly build a suite of custom tools on top of these services.

As team lead, I wrote the B-Level requirements specifications for my modules, organized design meetings and conducted unit level and integration tests. I also contributed to the team effort by writing several parts of the code, design documents and user manuals. I actively participated in project-wide architecture reviews and played an important role in motivating my teammates, emphasizing reuse and shaping the overall architecture of Project Center.

### **Compiler for an Interpreted Language (Java)**

Successfully designed and developed a compiler for a language named PL. The compiler was developed in six stages - Scanner, Parser, Error Recovery, Scope Analysis, Type Analysis and Code Generation. It successfully implemented a parsing technique known as 'recursive descent' and generated code for a virtual machine named 'PL Interpreter'.

### **Test Harness (C# – .NET)**

Successfully designed and developed a test harness that used .NET Reflection to load and run test assemblies. The goal of the test harness was to simplify the task of writing and running automated regression tests. I also developed a library of pluggable test services (eg. test data generation, test output logging) for this test harness.

## **Additional Academic Projects:**

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- TCP/IP Message Pipeline (C++ - Windows)
- Reusable Application Installer (C# - .NET)
- Type Dependency Analyzer (C# - .NET)
- Requirements Database (C# - .NET)
- Process and Port Sniffers with DLL Updates (C++ - COM, C# - .NET, Web Services)
- Problem solving using Simulated Parallel Processor Networks (Java)
- Priority-based Operating System Process Scheduler (C++ - Nachos, Sun Solaris)
- Operation Concept Document for Test Management System (Documentation)
- Object Serialization (C++ - Windows)
- Remote File Synchronizer (C# - .NET)
- File Dependency Analyzer (C++ - COM)
- WAN-based Time Synchronizer (C - DOS)

## **Current Project:**

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### **Distributed Testing Infrastructure (C# – .NET)**

The goal of this project is to build an infrastructure for bringing software specification and software testing closer together such that it is possible to generate specifications from test code and vice-versa (in specific domains). An additional goal is to be able to effectively support testing in a distributed team-based software development environment.

### **Awards and Achievements:**

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- Awarded membership to the Phi Beta Delta society of international scholars
- Awarded Teaching Assistantship on the basis of excellent academic performance  
I was Teaching Assistant for two graduate level software design courses - Object Oriented Design (Spring 2005) and Software Modeling and Analysis (Fall 2004). As part of my responsibilities, I conducted weekly training sessions for students, assisted them in debugging their code and held help sessions to discuss their designs and solve their problems.
- Several of my class projects were recognized as best projects and were entered in the best projects section of the class website

### **Extracurricular Activities:**

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- Conceptualized and developed a number of on-campus team projects as a member of the campus Student Activity Council during my Bachelors
- Played an active role in organizing the annually held campus technical festival - 'Technovate' during my Bachelors
- Networked with people and kept abreast with latest technologies through involvement in several symposiums as an active IEEE member during my Bachelors
- Represented my school at several functions as a member of the school's singing troupe
- Actively participated in stage plays as part of a drama troupe during my school days

### **Hobbies:**

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I enjoy singing, playing my violin, reading books and playing table-tennis and cricket.