

Nikunj R. Mehta

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Objective

Provide software engineering leadership in the research and development of enterprise software systems leveraging my practical experience and research background in software architectures.

Technical summary

In-depth knowledge of multiple programming languages and platforms; expertise in architectural styles, design patterns, data modeling, scalable server design; highly effective verbal and written communication skills, experienced technical writer; experience of various SDLC techniques

Experience

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|-------------------------|---|-----------------|
| Apr 03 – present | <i>University of Southern California</i>
Department of Computer Science
Ph. D. Candidate | Los Angeles, CA |
|-------------------------|---|-----------------|
- Research and develop a visual assembly language and environment for composing hierarchical software architectures using multiple styles and architectural primitives
 - OO design and programming in Java for software architecture workbench
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| Mar 01 – Mar 03 | <i>Fasturn Inc</i>
Senior Software Architect | Redwood City, CA |
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- **Patent** pending technology for “*Drill down calendar display of active data associated with one or more operational flows*”
 - Responsible for system architecture including scalability, network distribution, component technologies, architectural style, algorithms, OO design, security, and build automation
 - Lead and mentor team of 6 senior engineers
 - Designed, documented, and implemented architectural frameworks
 - Developed an asynchronous rule engine for operations exception reporting
 - Designed highly configurable function- and data-level security for application to secure all aspects of application using JAAS and container-managed J2EE security
 - Designed configurable live report generation infrastructure using JDBC, XML and XSLT
 - Designed and implemented product integration, build and installation procedure on top of CVS using ANT and Windows scripting
 - Designed graph-based algorithms for complex dependency and calendaring calculations
 - Develop and enforce software development standards
 - Developed product specifications for critical system features
 - Documented software engineering processes including system and software architecture, design, configuration management, and maintenance
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| Apr 00 – Feb 01 | <i>Mediaconnex Communications</i>
Co-founder/Architect | Hollywood, CA |
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- Lead project planning, architecture, design, and implementation of a J2EE media e-commerce application using Weblogic Server
 - Analyzed operational concept and documented detailed requirements
 - Develop and track project plans for development groups of 12 developers
 - Handled all critical software development tasks and trouble hotspots
 - Manage load testing, performance testing, and performance tuning using profiling and stress test tools achieving major performance improvements

Sep 98 – May 99	<i>University of Southern California</i>	Los Angeles, CA
Sep 99 – Mar 00	Department of Computer Science Graduate Assistant	
	<ul style="list-style-type: none"> ▪ Developed a highly extensible, tiny-footprint software architecture framework in Java for use in embedded software. ▪ Developed brain simulation environment on Sun Solaris using a variety of machine learning techniques and an object oriented, multi-threaded simulation engine, and a Java Swing based UI. ▪ Developed guidelines for a software engineering process framework 'MBASE' used by both academia and industry. 	
Jun 99 – Aug 99	<i>Carnegie Mellon University</i> <i>Software Engineering Institute</i> Graduate Research Assistant	Pittsburgh, PA
	<ul style="list-style-type: none"> ▪ Designed and developed a rich user interface for authoring interactive process guides ▪ Developed interactive web-based software engineering process guide for MBASE 	
Jun 97 – Jul 98	<i>Tata Infotech Limited</i> Software Engineer	Mumbai, India
	<ul style="list-style-type: none"> ▪ Design and develop product features for SignBANK – an award winning shrink-wrapped imaging solution for financial applications. ▪ Create designs of DCOM-based client-server applications ▪ Identify distributed object technologies for delivering applications over the Internet, in order to simplify installation and maintenance. ▪ Troubleshoot product administration issues at customer sites through on-site consultancy ▪ Design and develop migration utilities for porting legacy applications to client server environment. 	

Skills summary

Technologies

Design - UML, OOAD, E-R Modeling

Programming - Java, C++, SQL, COBOL, Lisp, Unix shell/Windows scripting, PL/SQL, CSS

Databases - Oracle 8i, SQL Server 2000

App servers - JBoss, Weblogic, Jakarta Tomcat

APIs - J2EE, XML, XSLT, CSTL, COM/DCOM, ActiveX, SOAP, EJB, JMS, JavaMail

APIs – DOM, Swing, MFC, JSP, JAAS, Twain, sockets

Frameworks – Ant, Struts, Avalon, Rhino, Weblogic Personalization

Tools

IDE – NetBeans, Visual Cafe, MS VC++, MS Visual Basic

Design - Rational Rose Enterprise, Oracle DBA Studio, Visio

Software QA - CVS, Bugzilla, ClearQuest, SourceSafe, PVCS Tracker, PVCS VM, ANT, JUnit

Project Management - RUP, Rational Requisite Pro, MS Project, MS Office

Platforms – Windows, Solaris, Linux, Unisys mainframes, AIX

Communication skills

Published papers at international conferences such as ICSE and journals like IEEE Computer

Invited speaker and lecturer for several undergraduate and graduate CS courses

Written detailed functional specs, design and architectural specs, and development standards

Education

Sep 99 – Present University of Southern California Los Angeles, CA
Ph. D. Candidate in Computer Science (expected 6/04)

- Dissertation – *Composing style-based software architectures from architectural primitives*
- International Student Achievement Award
- Student Leadership Award

Sep 98 – Aug 99 University of Southern California Los Angeles, CA
M. S. in Computer Science (GPA 3.95)

- Specialization in Software Engineering
- Coursework included distributed systems, software architectures, algorithmic analysis, computer communications
- Designed architecture and managed development of a 1 man-year digital library client-server application for USC using IBM Digital Library, Twain image library, and Visual Basic

Aug 92 – June 97 University of Mumbai Mumbai, India
B. E. in Computer Engineering
(First Class with Distinction)

- Ranked third in University among 900 students.
- Developed facial feature recognition algorithms in C++ employing artificial neural networks

References

Available upon request