

EMPLOYMENT

Software Engineer	Cigniti Inc	Sep 2008 – Present
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Houghton Mifflin Harcourt (HMH) Website Redesign:

- Rebuilt HMH website. C#, WCF, REST, .Net 4.0, Sitecore, jQuery, NUnit, Moq, Unity DI, TDD, MSMQ.
- Designed the system architecture with Solutions Architect during early stages, quickly developed proof of concepts, performed pros and cons of tools and frameworks.
- Implemented a User Store as WCF service by extending ASP.Net Membership user store to perform account actions, built user account UI pages, Email Service to notify upon actions.
- Built a wrapper factory class to choose implementations using Unity Dependency Injection (DI) at runtime.
- Wrote 400+ unit and integration tests, followed TDD, used NUnit, Moq.
- Tuned WCF services by configuring service behaviors, binding timeouts, connections limit.
- Authored best practices documents for unit and integration testing, NUnit, Moq, Unity.

Omni Hotels Website Redesign:

- Rebuilt Omni Hotels website. C#, .Net 4.0, Sitecore 7, Solr, jQuery, NUnit, Unity DI, MSMQ.
- Used Solr to index and search Sitecore content items as Hotels, Destinations, Specials.
- Used Microdata for tagging content on pages to show rich snippets in search results.

Reviews API for Samsung:

- Used by Samsung for reviews on 15 countries. C#, .Net 4.0, REST, LINQ, MSMQ, LINQ-SQL.
- Wrote a Feed Aggregator to aggregate product reviews from different review sources (review sites, blogs).
- Designed and implemented WCF REST API to display product reviews in custom XML format.
- Used MSMQ for asynchronous batch processing to avoid IO contention. Reduced time by 50%.

NFP Website Redesign:

- Rebuilt NFP website. C#, ASP.Net MVC 5, .Net 4.5, jQuery, AngularJS, JSON, REST.
- Created flexible system architecture to work for URLs with any level depth using common MVC Views and Partial Views and to save page content in JSON files with caching.
- Used MvcSiteMapProvider tool for menus, generating sitemap.xml with dynamic links, page's breadcrumb, page's robots meta tag, page's visibility in sitemap.xml and breadcrumb, highlighting of active menu item.

Payroll and Employee Management System:

- Developed critical payroll processing business logic and reduced time by 80%. C#, .Net 3.5, TDD, NUnit 2.5.
- Developed an approximation algorithm for a problem similar to Knapsack problem to process payroll deductions. Reduced time from $O(2^n)$ to $O(n)$.

TECHNICAL SKILLS

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- Languages: C#, Java, Python, jQuery, JavaScript, HTML, CSS
 - Web Services, REST, .Net, ASP.NET MVC, WCF, Visual Studio, SQL, NUnit, Entity Framework, LINQ-SQL

EDUCATION

M.S. Computer Science	Southern Methodist University	Aug 2003 – May 2005
B.E. Computer Engineering	Mumbai University, India	Aug 1998 – Jun 2002

GITHUB PROJECTS

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- **C# Extension Methods:** Utility methods for types as Enum, IEnumerable, String, etc. C#
 - **Trie:** Trie data structure implementation. C#
 - **2048 Game:** Website clone of 2048 game. JavaScript, jQuery
 - **Shallow Battery Discharge:** Rule using on{X} Android JavaScript API to notify user. JavaScript
 - **Email Template Replacer:** Implementation to replace tokens in email templates using reflection. C#