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Last updated: 2/16/2024

2/2023 to 11/2023

10/2018 to 11/2022

## SUMMARY

10+ years of full-stack experience across all phases of the Software Development Lifecycle (SDLC).

# PROFESSIONAL EXPERIENCE

DYNAMIC TALENT SOLUTIONS, INC., Somerset, NJ, <u>DynamicTalentSolutions.com</u> Consulting Senior .NET Developer

- Contracted with a professional services firm to modernize a legacy system originally written in COBOL. For this modernization project:
  - Wrote detailed design specifications for a set of scheduled batch programs that feed data from external sources to an Oracle database and generate reports from that database.
  - Implemented and dev-tested these batch programs and their unit-tests using Visual Studio 2019, C#, .NET Framework 4.8, Oracle PL/SQL, Sql Developer, Sql Server Management Studio (SSMS), Team Foundation Server (TFS), MS Teams.

#### ENERGY SERVICES GROUP, Norwell, MA, esgGlobal.com

#### Senior Software Engineer

- Proposed and designed a cloud-services-based re-architecture of the Transaction Management Services (TMS) product that provides automated B2B communication between business entities in the retail energy sector for electricity transmission, distribution, and billing. Developed and presented a roadmap for migrating to that new architecture from the current one.
- Served as Scrum Master and developer in:
  - A team maintaining, enhancing, refactoring, deploying, and documenting the Wholesale Energy Services (WES) product, which is a web application that provides real-time analytics, demand forecasting, risk management and hedging strategies for wholesale energy markets for electricity in the U.S. and Japan. Helped that team adopt Agile principles and practices for working on that product.
  - A combined team working on the TMS and WES products, both of which are SaaS. Guided this larger team in evolving and documenting a new Agile model and work-processes, combining elements from Scrum, Kanban and Lean.
  - A new team developing, maintaining, and enhancing the WES and Ascent products. Designed and implemented new Jira boards, JQL filters, Confluence pages and sprint metrics. Helping this team to establish and refine Agile practices for working on these products.
- Configured and ran Veracode security scans (Static Analysis, Dynamic Analysis, SCA and Greenlight) of .NET solutions in Git repositories for 3 products and analyzed/triaged their results. Added, organized, maintained, and tracked Jira tickets for remediations of the vulnerabilities found. Implemented remediations and advised other developers on best practices for fixing specific types of vulnerabilities, e.g., SQL Injection, XSS, Directory Traversal. Submitted Mitigation Proposals where appropriate. Automated several of these scans using Jenkins jobs. Worked with Veracode Support to resolve runtime errors from the scans.
- Served as Tech Lead for a team designing, planning, implementing, and documenting automated testing for the WES product, with a test-engine built on Selenium, SpecFlow, .NET Core, Oracle, and PowerShell.
- Proposed a high-level design for repositories, branching strategies, process flows and deployment pipelines for a migration of the TMS and WES products from Visual SourceSafe to Git and Bitbucket, using Jenkins jobs for CI/CD. Helped the team to converge on the architecture, detailed design, planning and implementation of this project.
- For the TMS product, developed and maintained new C#/.NET Core utilities for:
  - Automated secure retrieval of billing data from a corporate customer using a ReST API. Coordinated development of this API-consuming utility with the customer's development of their API.
  - Periodically requesting and downloading usage reports from a particular energy utility's website (i.e., webscraping), using RestSharp and HtmlAgilityPack.
- Added enhancements and fixed bugs in the Ascent and WES products.
- For the WES product:
  - Designed, implemented, and optimized performance of a new Oracle stored procedure and new tables that it uses to project historical load-profile data for electricity demand into forecasts for future years. Developed a wrapper

executable (in C# and .NET Core) that calls this stored procedure, logs its results, and sends notifications on errors. Added a scheduled job that runs this process periodically.

- Designed, planned, and implemented a pipeline for deploying and testing Git commits for region-specific Jira tickets in a Staging environment between User Acceptance Testing (UAT) and deployment to Production. Tracked progress of these Jira tickets along this pipeline and planned/supervised their deployments.
- For the Ascent product:
  - Developed a utility for obfuscating Personally Identifiable Information (PII) in SQL Server databases in specified non-Production environments (Dev, QA, UAT), consisting of a SQL Server Agent job, stored procedure, user-defined function, tables, indexes, and SQL scripts.
  - Designed and implemented SQL scripts for identifying, deprecating, and finally dropping obsolete database artifacts (tables, views, stored procedures, SQL jobs) in a set of SQL Server databases.
  - Proposed a design for refreshing the Ascent databases in non-prod environments with a subset of only the production data that is needed in those environments, e.g., for QA testing and sales demos.
  - Used Azure DevOps automation for builds and deployments of components of the Ascent product (e.g., its web applications, console applications, databases, SSIS, SSRS). Debugged and resolved errors in this automation.
- Used C#, .NET Core, .NET Framework, JSON, JWT, NuGet packages (NLog, NUnit, RestSharp, HtmlAgilityPack), Visual Studio 2019, SQL Server Management Studio (SSMS), Oracle, Toad, Azure DevOps, AWS (S3, SQS, CloudWatch, Lambda/Step Functions, Workspaces), ASP.NET, JavaScript, Perl-CGI, HTTPS, FTP, XML, EDI x12, SQL, Git, Bitbucket, Jenkins, Veracode, Jira, JQL, Confluence, Lucidchart, IIS, Fiddler, Postman, LogParser, Visual SourceSafe, Zoom, MS Teams, Slack, Agile (Scrum/Kanban/Lean).
- BROOKLINE ADULT & COMMUNITY EDUCATION, Brookline, MA, <u>BrooklineAdultEd.org</u> 9/2015 to 4/2019 (part time) Instructor, <u>Beginning Software Engineering</u>, Part 1: A Survey of Basic Principles
  - Developed and presented 2-hour lectures for each of the 6 weekly sessions. Developed homework assignments for the students and provided a sample solution for each assignment.

# THOMSON REUTERS, Boston, MA, <u>ThomsonReuters.com</u>

#### Senior Software Engineer

- For the next generation of the eBillingHub product:
  - Developed ReST APIs, microservices and database integrations.
  - Designed and implemented an authentication/authorization interface to these microservices using Azure API Gateway.
- For the legacy version of eBillingHub:
  - Built and coordinated a robust technical and organizational infrastructure for maintaining, enhancing, deploying, and troubleshooting this product.
  - Proposed, designed, implemented, and maintained a Continuous Integration system (including gated check-in) for this product's codebase, using TFS, VSTS and Azure DevOps Server.
  - Served as Scrum Master (and developer) in the team maintaining and enhancing this product. Ran the Agile ceremonies: standup, backlog grooming, sprint planning, sprint reviews and sprint retrospectives.
- Used Microsoft Azure (IaaS, PaaS, AppInsights, API Management, ARM templates, SQL Database resources), C# with LINQ, WebAPI, HTTP, JSON, SOAP, XML, XSD, XPath, IoC containers, Entity Framework, PowerShell, ASP.NET, VB.NET, Visual Studio 2017, Team Foundation Server (TFS) 2018, VSTS, Azure DevOps Server, T-SQL, SQL Server 2016, SQL Server Management Studio (SSMS), IDERA SQL Doctor, Postman, IIS, LinqPad, Fiddler, regedit, WebEx, Jabber, Test-Driven Development (TDD), CI/CD, Agile (Scrum/Kanban).

#### **GRIDUNITY (formerly QADO ENERGY, INC.)**, Boston, MA, <u>GridUnity.com</u> Consulting Software Engineer

- Designed, implemented and dev-tested enhancements, refactoring and bug-fixes in a customer-facing web application (using Java SE v8, JSP, Spring, Python, MySQL, and MongoDB) that facilitates the integration of new electricity-generation sources (e.g., solar panels/farms) into electrical power distribution grids. Enhancements included:
  - Conditional visibility of menus & sub-menus, and conditional access to their pages based on specific privileges assigned to roles assigned to users.
  - A workflow for extracting specific field-values from other workflows.
  - Workflows for importing/generating/exporting CSV files between database tables, AmazonS3 and STFP servers.
  - Caching lists fetched by ORM layers from the database only when needed, to improve performance.
  - o A ReSTful/Java API for creating, retrieving, updating and deleting custom privileges in a security model.
  - o Custom JSP web pages for handling unexpected server exceptions and HTTP errors.

#### 11/2016 to 3/2017

# 4/2017 to 10/2018

• Used Java SE v8, Spring, JSP, JUnit, Eclipse (Neon), Maven 3, Jenkins, Python, Jython, PyDev, Tomcat 8, HTTP, HTML 5, CSS, JavaScript, Knockout.JS, jQuery, AJAX, JSON, XML, CIDR, IPv6, Postman, SQL, MySQL, Hibernate, MongoDB, ElasticSearch, AWS S3, SFTP, com.jcraft.jsch, FileZilla, Git, GitGUI, GitLab, Assembla, OpenConnect-gui, AnyConnect, Skype, WebEx, Agile/Scrum.

## GIANT EAGLE, INC., Pittsburgh, PA, GiantEagle.com

#### Consulting Software Developer (via Oxford Global Resources, OxfordCorp.com)

- Designed, implemented, dev-tested and deployed:
  - ReSTful web services for an e-commerce framework, providing WebAPI service methos for:
    - Gift cards (balance check and order history)
    - Business-to-business (B2B) customers and their associated users (creating and querying)
  - A utility for loading and updating B2B-customer-related data from Excel spreadsheets into Oracle and SQL Server databases via object-relational mapping (ORM) layers.
- Used WebAPI, OAuth, C# with LINQ, SQL, JSON, HTTP, .NET 4.5.2, Entity Framework 6.1, Microsoft.Office.Interop.Excel, Visual Studio Enterprise 2015, Team Foundation Server (TFS), SQL Server 2012, SQL Server Management Studio (SSMS), Oracle 11i, Oracle.DataAccess.Client, Oracle SQL Developer, Postman, SharePoint 2013, Windows Server 2012, JIRA, Skype for Business, GoToMeeting, Agile/Scrum.

## HINDA INCENTIVES, Chicago, IL, hinda.com

- Consulting Software Developer (via Oxford Global Resources, OxfordCorp.com)
  - Enhanced the automated order-processing subsystem of a web-based employee-rewards platform by developing API-based integrations with 2 international order-fulfillment vendors. Enabled high-throughput dataflows (via XML files and programmatically generated Excel spreadsheets) for:
    - Importing catalogs from vendors
    - Sending orders from clients to vendors
    - Receiving and handling order-status messages from vendors, all via a central group of SQL Server databases, generating email notifications for error-reporting.
- Developed SQL queries to:
  - Create reports for business users about statistics and details of imported catalogs and their items.
  - Identify "lagging" orders that are behind schedule in various stages of the pipeline from the client placing an order on a Hinda website and the successful delivery of the specified items to the recipient.
- Designed, implemented, and deployed an ASP.NET/C# web application that enables an administrative user to load a spreadsheet specifying a set of orders, generate order-placement XML files for those orders, and upload those files via SFTP to the appropriate vendor, updating the user-interface with incremental progress messages via SignalR.
- Defined requirements, implementation/testing tasks, estimates, priorities, and design approaches for a set of proposed enhancements to a web site used by the Sales team to demonstrate the capabilities of client-specific sites hosted by Hinda Incentives.
- Wrote GUI specifications, designed and implemented (including SQL stored procedures) 3 new pages in an MVC/Razor/C# web application for generating and downloading:
  - Database reports (as CSV files) about (a) items in international catalogs from multiple vendors for a specified country, (b) orders from specified clients during a specified date-range and processed by specified shipment vendors
  - $\circ$  Zip files containing image files for items in the international catalogs for a specified country and vendor.
- Enhanced pages in the above web application for searching for a particular client's order and displaying its details, contained items and history of shipment-status updates for each item.
- Used XML, XSD, ASP.NET, MVC 4, Razor, Telerik, HTML 5, CSS, JavaScript, jQuery, SignalR, classic ASP, VBscript, C#, LINQ, NET Framework 4.5, Regex, GemBox.Spreadsheet, Tamir.SharpSSH, NUnit, Visual Studio 2012, ReSharper 10, TFS, SQL, SQL Server 2012, SQL Server Management Studio (SSMS), FTP/SFTP, WinSCP, Remote Desktop Connection, JIRA, Atlassian wiki pages, Agile/Scrum.

#### SCHEIDT & BACHMANN USA, Burlington, MA, <u>scheidt-bachmann.com/</u> Consulting Software Developer (via Experis IT, Experis.com)

• Developed, dev-tested, deployed and documented a data-synchronization utility (invoked periodically from Windows Server as a scheduled task) which runs a set of "export" and "import" reports on a schedule specified in XML configuration files and writes status/error messages to a log file. For each export report, it calls a SQL stored procedure, archives the resulting data as either a JSON or CSV file and uploads the generated file via Secure FTP (SFTP) to an FTP server. For each import report, it downloads a CSV file from the FTP server (via Secure FTP) and inserts its contents into a specified table in an Oracle database.

#### 9/2015 to 11/2015

#### 12/2015 to 4/2016

## 7/2016 to 10/2016

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• Used C#, SQL, .NET Framework 4, Visual Studio, Oracle.ManagedDataAccess, Oracle 11gR2, SQL Tools, Renci.SshNet, FileZilla, VPN, Remote Desktop Connection, Windows Server 2008.

# FRESENIUS MEDICAL CARE, Waltham, MA, FreseniusMedicalCare.us

- Consulting Software Developer (via Bay State Search, LinkedIn.com/company/Bay-State-Search)
  - Proposed, specified, and prototyped an integration between SharePoint 2013 and Azure databases, using (within SharePoint): Custom Sites, Custom Pages, Custom Actions, Custom Forms, External Lists, External Content Types, Excel Services, Business Data Connectivity Services, as well as SharePoint Designer 2013, Visual Studio Community 2013, Office 365, Access 2013, Excel 2013, "XML Spreadsheet 2003" representation of Excel 2013 spreadsheets, and Agile with daily standup meetings.

## MILLIS RECREATION DEPARTMENT, Millis, MA, <u>millis.org/Pages/MillisMA\_Recreation</u> 6/2014 to 6/2015 (part time) Lecturer

• Developed and taught community-education courses in Music Theory/History, Software Engineering, and Physics/Cosmology.

# MEKETA INVESTMENT GROUP, INC., Westwood, MA, MeketaGroup.com

# **Applications Developer**

- Proposed, planned, designed, implemented, dev-tested, documented and supported new features, enhancements, bug-fixes and refactoring in a financial-analysis application using a many-tiered Service-Oriented Architecture, C#, SQL, WinForms, Telerik controls, WCF, IIS, SQL Server, SSMS, SSIS, SharePoint, Visual Studio, TFS, and Agile with daily standup meetings.
- Enhancements included:
  - Screens that enable (1) scanning, parsing, validating, and saving data (to a SQL Server database) from user-supplied Excel spreadsheets, and (2) interactive editing of the uploaded data.
  - Automated generation of Word documents from a set of "template" documents in a SharePoint Document Library, programmatically inserting values from a database into Document Properties in the generated Word documents (according to user-supplied specifications), then saving as PDF.
  - An interactive editor for hierarchies of aggregate investment portfolios and their characteristics.

## PUBLIC CONSULTING GROUP, Boston, MA, PublicConsultingGroup.com

## **Consulting Web-Applications Developer** (via Hollister Staffing)

- Developed enhancements to 2 client-facing web-applications (using ASP.NET, VB.NET, SQL Server, Visual Studio, TFS, and Agile with daily standup meetings) for storing, reviewing, and analyzing documents (and their metadata) relating to:
  - 1. Reports of Medicaid fraud and abuse:
    - Added front-end GUI features and business logic (using HTML, CSS, and Silverlight) and back-end database structures (SQL stored procedures, user-defined functions, views, tables, and scripts).
  - 2. Tracking legal appeals of "adverse decisions" for Medicaid claims:
    - Added a set of new web pages and their menu items.
    - Designed and implemented the GUI-controls, business logic and database structures needed by these new pages.
    - Wrote a detailed list of tasks and estimates for developing this project.
    - Gave weekly demos (via Webex and conference calls) of new functionality.

## DECISION RESOURCES, Waltham, MA, DecisionResources.com

# Consulting Software Engineer and Applications Developer

- Designed, implemented, dev-tested, documented, enhanced, and maintained the web based DecisionBase product line using ASP.NET, C#, JavaScript, jQuery, XML, XSLT, SQL Server, Stellent Content Server, Visual Studio and Subversion.
- Developed SharePoint workflows using C#, Workflow Foundation and SharePoint Designer.
- Developed 2 Oracle Universal Content Management (UCM) criteria workflows, using Java SE.
- Enhanced, maintained, and documented a SQL Server database of epidemiological data using SSIS and DTS packages.
- Developed Perl utilities for the Production Dept., e.g., to aggregate and transform tables in MS Word documents.

Earlier work experience provided on request.

# **EDUCATION**

Training Courses: AWS Certified Cloud Practitioner Developing Microsoft Azure Solutions

#### 8/2006 to 6/2010

#### 2021 2017

8/2010 to 4/2012

# 4/2012 to 3/2014

7/2015

Autonomy Essentials	2002
Northeastern University, Framingham, MA: Graduate courses in Artificial Intelligence and Neural Networks	1994 to 1995
Harvard University Extension School, Cambridge, MA: Graduate courses in Math and Software Engineering	1990 to 1993
University of Massachusetts, Boston, MA: Certificate in Computer Science	1989
New England Conservatory of Music, Boston, MA: Bachelor of Music with Honors	1978