

Rob Das

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Summary

As a senior software developer with over 20 years of experience, Rob Das has used his combination of computing science degree, I.T. training, and years of progressive industry experience in enterprise level, mission critical environments to deliver solutions that meet specific business needs. By specializing in the software and application domains of information systems development, Rob has gained valuable experience and exposure across all aspects of the I.T. solutions design, deployment and operations lifecycle. Rob's soft-skills include systematic and methodical problem solving; diplomatic people skills; and clear, logical communication.

Technical Skills

- Azure App Services
- Azure Active Directory
- Microsoft Identity Platform
- Azure Key Vault
- microservices using Azure Functions
- C# .NET
- MVC .NET
- web development with .NET Core
- RESTful API
- web/database programming
- entity framework
- LINQ
- SQL Server
- Cosmos DB cloud storage
- test driven development
- domain driven design
- object oriented programming
- common design patterns

Projects

- AzureDev (*DTEK*)
- PMDB (*EPCOR*)
- Registry Renewal CBA (*APEGA*)
- eServices (*CoE, Current Planning*)
- Eden Project (*AMA*)
- Proficy SOA (*GE – IP*)
- Capacity Planning (*GoA, Energy*)
- CMS Upgrade (*GoA, Energy*)
- LCR New Releases (*WCB*)
- Project Plato (*EPS*)
- Project APSNet (*EPS*)
- AUSIM Project (*Athabasca University*)

Work History

1. DTEK Consulting Services Ltd. Azure Developer December 2021 – November 2022 (12 months)

Completed project AzureDev, internal project, migrating on-prem websites to Azure cloud.

- Redesigned and rebuilt the corporate website to run in a serverless cloud environment.
- Used platform as a service, Azure App Services web apps, APIs, and function apps to modernize the application's architecture.
- Coded with the latest version of C# .NET Core, and with the SDKs for Microsoft Authentication Library, Azure Functions, Cosmos DB.
- Setup Azure Active Directory, single tenant model, for authentication and authorization.
- Created a dedicated dev/test database environment, using a decommissioned, repurposed Windows Server to host an instance of Cosmos DB emulator.
- Migrated the on-premises hosted SQL Server, to the cloud hosted Cosmos DB.
- Implemented microservices using Azure functions, with each function implementing a restful API operation: post, get, get all, put, and delete.
- Want to know more? See the [executive summary](#).

Tools: ASP.NET MVC Core; Azure Active Directory; Azure App Services; Azure Cosmos DB; Azure Functions; Azure Resource Manager – Azure Portal, CLI, Azure PowerShell; C#; Git; GitHub; Hyper-V virtualization; JSON; JWT ID tokens and access tokens for security; Markdown documentation language; Microsoft Authentication Library (MSAL.NET); Microsoft Identity Management; platform as a service (PaaS); StackEdit markdown editor; Visual Studio; Visual Studio Code; Windows Server

Best Practices: globally distributed, multimodal database; MVC design pattern; web and cloud development; multilayered security with OAuth 2 and OIDC authentication and authorization; role-based access control; microservices; restful API

Database: Azure Cosmos DB

2. Independent Research and Study November 2020 – November 2021 (13 months)

Upgraded my skillset to include Microsoft Azure cloud-based Development.

- Completed online training from various sources including Microsoft Learn, Pluralsight, Skillssoft, and a considerable amount of related textbook and online reading.
- Passed Microsoft certification exams AZ-900 and AZ-204 to earn the designation of Microsoft Associate Level, Azure Developer.
- Attended Microsoft Ignite 2021 virtual online conference, and successfully completed the Microsoft Ignite Cloud Challenge

3. EPCOR

Senior Software Developer

December 2018 – April 2020 (17 months)

Worked with the CRM team providing development and operational support to web applications including My Accounts, PMDB, and GeoFIT.

- Developed an intranet web-based performance monitoring database application (PMDb) to manage customer service quality in the energy services call centre.
- Linked PMDB to the HR system to pull employee data including position titles used for role-based authorization; and reporting lines to enforce employee confidentiality.
- Provided enhancements to PMDB including importing legacy system data; creating an aging mechanism for employee data; and various user interface enhancements.
- Assisted with unit testing of the “failed login attempts” tracking system, and assisted with code changes to the “power outage notification” wizard for the 2018/Q4 release of My Accounts.
- Coded, tested and delivered the changes to the Customer Engineering Services (CES) module for the 2019/Q1 release of My Accounts.
- Designed and constructed a component for the GeoFIT asset management application to manage fire hydrant flags.

Tools: Angular framework; React framework; ASP.NET MVC and MVC Core; Azure DevOps; Bootstrap framework; C#; Entity Framework; Javascript; JQuery; LINQ; Oracle APEX framework; Typescript; Visual Studio; Visual Studio Code; Windows Server; IIS; SQL Server; Serilog and Seq logging; Node; NPM; NUnit; Moq; Jira; VSO Azure DevOps; Git; Jenkins; Octopus.

Best practices: agile scrum; enterprise architected environment; quarterly release management; web portals development; object-oriented programming best practices; unit testing.

Database: SQL Server; Oracle

4. Research and Study leave

May 2018 – October 2018 (6 months)

Expanded my company’s corporate network to more closely simulate typical client IT environments; and then updated my web development skillset focussing on ASP.NET Core 2, Bootstrap 4, React, and Angular front-end frameworks.

- Updated the IT environment for DTEK Consulting Services Ltd: created separate subnets; used virtualization to host multiple servers as separate virtual machines: domain controller, file server, SQL database server, TFS server, web servers for test and production environments, and a batch process server.
- Completed several online tutorials and courses through LinkedIn, edX, Microsoft Virtual Academy, and others.
- Rewrote corporate website using MVC Core version 2.1 and Bootstrap version 4. Added a multiuser chatroom and a single page application (SPA) to function as a games room, using React.

5. Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Senior Web Developer

November 2016 – December 2017 (14 months)

Worked with the application development team in the role of senior developer for the member and corporate self service center web portals.

- Provided guidance on how to effectively perform modifications to legacy systems by following design patterns and best practices.
- Assisted with the CBA (Competency Based Assessment) and Name Change sub-projects of the Registry Renewal project.
- Demonstrated how to refactor disorganized code to be maintainable.
- Provided all project deliverables as per requirements, with many quality improvements through code refactoring in order to implement separation of concerns; domain service and repository layers; and encapsulation of legacy code with the façade design pattern.
- Showed benefits of the refactoring by creating a suite of unit tests for business logic, allowing developers to hand over high-quality code.
- Delivered high quality, well written, thoroughly tested code for all project deliverables.

Tools: ASP.NET MVC and Web Forms; Bootstrap framework; C#; Javascript; JQuery; LINQ; Visual Studio; Windows Server; IIS; SQL Server; Stored Procedures; NUnit; NSubstitute; Atlassian cloud-based project tools (Jira, Confluence, Bitbucket, Bamboo).

Best practices: Agile practices: Scrum and Kanban; design; enterprise architected environment; interactive web development; iterative development; Web portals development; object-oriented software development best practices; refactoring; unit testing; cloud-based project management tools.

Database: SQL Server

6. Alberta Motor Association, Driver Education

Senior Web Developer

August 2016 – October 2016 (3 months)

Short term contract assigned to the Eden project – new online driver education admin system.

- Developed a location module to manage all AMA locations organized hierarchically: province, region, city, facility and classroom and present them graphically as a collapsible tree using Bootstrap Treeview
- Created all views based on wireframe mock-ups developed by user experience experts.
- Assisted with development of unit tests and integration tests.
- Took ownership of delivery of the first user story “student program selection by location”, for delivery into production.

Tools: ASP.NET Core MVC and Web API; Bootstrap framework; C#; JQuery; Javascript; LINQ; NHibernate; IIS; SQL Server; TFS; XUnit; NSubstitute; Selenium testing framework

Best practices: model-view-controller; enterprise architected environment; interactive web development; repository patterns; object-oriented programming and design; object relational model; responsive web design; intuitive user experience; automated testing

Database: SQL Server

7. Research and Study leave
January 2016 – July 2016 (*7 months*)

Updated my web development skill set focussing on ASP.NET Core 1.0, Microsoft's new open source web framework.

- Built an IT environment for DTEK Consulting Services Ltd. for software development, web hosting, and corporate administration utilizing internal and externally facing Windows Server systems.
- Installed and configured IIS and the necessary extensions to support ASP.NET Core on the external server, and used it to host a custom-built technology exploration website.
- Explored and implemented various leading-edge technologies including ASP.NET Core's built-in logging, dependency injection, configuration model, a file logging provider, an exception logging filter, server-side logging API, RESTful API, Entity Framework Core, and SQL Server database.

Tools: ASP.NET Core MVC and Web API; Bootstrap framework; Angular JS; Entity Framework Core; JQuery; Visual Studio; Windows Server; IIS; SQL Server; TFS; StyleCop; NUnit Lite; Moq

Best practices: model-view-controller; single page applications; RESTful API; multi-layered application architecture with domain service and repository patterns; entity framework object relational model; responsive web design; intuitive user experience; web hosting with registered domain, static IP address, and port forwarding; network router hardening techniques; unit testing

8. City of Edmonton
Web Developer
August 2015 – October 2015 (*2 months*)

Assisted with refactoring a .NET webforms application to use .NET MVC.

9. City of Edmonton, Current Planning
Microsoft Web Developer
February 2013 – May 2015 (*28 months*)

Participated in the development of the eServices web portal, which was created to provide online access for all citizens to conduct both residential and commercial business needs with the City of Edmonton.

- Build cross-application standardized functionality including login, registration and password recovery pages; city corporate branding look-and-feel; remote logging; unhandled exception management; user profiles to automatically perform intelligent behavior such as selecting the appropriate start page; fine-grained permission level security; separate administration site; breadcrumb and menu-based navigation; landing page rotating banner-display; browser detection to check for needed plugins
- Performed extensive code-level testing for cross-browser and device compatibility
- Assisted QA team to develop test suites in TFS
- Refactored business logic to follow a layered application architecture
- Participated in version 2 of the eServices portal using more up-to-date development tools such as MVC, Telerik Kendo UI, Autofac Dependency Injection, Angular, Microsoft Identity 2

Tools: Adobe Reader; Ajax; AngularJS; Asynchronous Programming; ASP .NET framework; AutoFac dependency injection; Bootstrap; C#; Colorbox; CSS3; Entity Framework; HTML5; HTTP Handlers; Identity 2.0; IIS; JavaScript; JQuery; JSON; Kendo UI; Lambda Expressions; LINQ; Log4Net; master/content pages; MIME types and plugins; Modernizr; MVC; ScrumDo; security (login controls, Membership, Roles, PrincipalPermission) ; skins and themes; Source Safe; SQL Server Management Studio; Stored Procedures; Telerik Rad Controls; TFS; Visual Studio; Unobtrusive JavaScript; Unobtrusive jQuery validation; web services; XML-based SiteMap and SiteMapPath controls;

Best practices: agile (epic, user story, task, scrum, sprint, daily stand-up); browser detection; client-side scripting; common design patterns (repository, singleton, MVC); database driven interactive web development; declarative and imperative role-based security; dependency injection; error handling and logging; object oriented programming and design; prototyping; responsive web development frameworks; scrum; service-oriented architecture; site navigation; standardized website look-and-feel; user controls;

Database: SQL Server

10. Research and Study leave

May 2012 – December 2012 (*8 months*)

Personal research; took a three-course sequence from Athabasca University.

- COMP 266 – Basic web development.
- COMP 348 – Network programming.
- COMP 466 – Advanced technologies for web-based systems.

11. General Electric, Intelligent Platform (GE – IP)

Software Developer

April 2011 – January 2012 (*10 months*)

Provided software development services for Proficy SOA, GE's manufacturing execution system which implements industry standards and best practices.

- Worked on call methods for logout automation, and editing manufacturing objects
- Assisted with localization project
- Migrated controls from desktop to browser by moving them from WPF to Silverlight
- Participated as a member of the bug fix team

Tools: .NET; Balsamiq; C#; Confluence enterprise wiki; Daemon Tools; DMS; IIS; ILSpy; LINQ; NUnit; Resharper; Silverlight; SQL Server; Subversion SVN/Tortoise source control system; Team City; TFS (Team Foundation Server); Visual Build Pro (software build and deployment automation system); Visual Studio; WCF; Windows 7; WPF; XAML; XML;

Best practices: MVVM and MVC design pattern; Agile best practices (test driven development, automated unit testing, build automation, continuous integration, daily scrum meetings, pair programming, refactoring, iterative development) ; Collaborative software development projects; data mapping service (object/relational layer); design; manufacturing execution systems; object oriented development; SOA and API; UI frameworks; unit testing;

Database: SQL Server;

12. Government of Alberta, Department of Energy

Systems Analyst

September 2009 – March 2011 (*19 months*)

Served as a systems analyst and application developer.

- Supported the following applications: corporate accounting and reporting system, quarterly reporting, information letters, oil royalty and tenure web forums, time entry and reporting, contract management system, contract compiler, and freehold mineral tax.
- Participated in planned application upgrade releases, system integration testing and disaster-recovery planning and testing
- Assisted in moving the contract management system's Oracle backend to SQL Server
- Worked on the capacity planning project migrating several applications onto new servers
- Participated in requirements definition workshops for job management system and contributed to the development of use cases.
- Prepared documentation for deployment procedures, migration plans, disaster recovery plans, business use cases.

Tools: ASP.NET; Azman authorization Manager; Classic ASP; Cluster Administrator; Crystal Reports; CSS; DOM; HP Quality Center test automation tools; HTML; Ibatis; IIS; Infragistics; Javascript; Log4net; Microsoft Management Console; Microsoft Office; Microsoft Project; Microsoft Visual Studio .Net (C# and VB.Net); MS Access; Oracle 10g; SharePoint; SQL Management Studio; SQL reporting services; stored procedures and triggers; T-SQL; UNIX; VB Script; VB6; Visual Source Safe; Windows Remote Desktop; Windows Server OS; XML;

Best practices: .Net Remoting; design; encryption; enterprise architecture (GAEA); Microsoft .Net framework; N-tier component-based architecture; object-oriented development; regression testing; SOAP; source control; systems analysis; test driven development; UML; unit testing; Web development; web-based content management;

Database: SQL Server; Oracle; Access;

13. DTEK Consulting Services Ltd.

Owner

March 2009 – Present

Started my own IT consulting company. Clients to date: General Electric; Government of Alberta; City of Edmonton, AMA, APEGA, EPCOR.

14. Workers' Compensation Board of Alberta

Web Developer

May 2006 – December 2008 (*32 months*)

Worked as part of an application maintenance and support services team providing support for a number of mission critical applications, that used many different technologies.

- Served as lead developer for the LCR application, a web-application with two database back ends: SQL Server application data-repository, and DB2 data-warehouse.
- Provided technical support for a fixed income portfolio analytical system (PC-Bond)
- Served as application support coordinator for the DECC application
- Provided tech support for CLMS, a corporate legal management system

Tools: ASP.Net; BPWin; Business Objects; Crystal Reports; CSS; DB2 command line tools; DOM; HTML; IIS; Javascript; jQuery; Lotus Notes Teamroom; Microsoft Management Console; Microsoft Office; Microsoft Visual Studio .Net (C# and VB.Net); NAnt; SOAP; SQL Enterprise Manager and SQL Analyzer; SQL Management Studio; SQL reporting services; stored procedures and triggers; T-SQL; Visual Source Safe; WinBatch; Windows Remote Desktop; Windows Server OS; WinMerge; XML; XSLT;

Best practices: build and deployment automation; COTS; data warehouse; design; enterprise architecture; ETL; Groupware; ITIL practices; Microsoft .Net framework; N-tier component-based architecture; object-oriented development; SOA; source code control; systems analysis; test cases; test driven development; UML documentation techniques; unit testing; web developer; Web Services; Window's services;

Database: SQL Server; DB2 data warehouse;

15. **Edmonton Police Service, Information Technology Branch**
Systems Analyst
April 2001 – April 2006

16. **Sierra Systems Edmonton**
Consultant
April 2001 – January 2009

For earlier experience please ask

Education

Bachelor of Science in Computing Science, University of Alberta, 1989

Certification

- Microsoft Associate Level, Azure Developer - 2021
- Microsoft Azure Fundamentals - 2020
- Information Technology Certified Professional, *ITCP* - 2009
- ITIL Foundation, *ITIL* - 2007
- Microsoft Certified Professional, *MCP* - 2006
- Oracle Certified Professional: Database Administrator, *OCP* - 2004
- Certified Programmer for the Sun Java 2 Platform, *JCP* - 2001
- Oracle Certified Professional: Application Developer, *OCP* - 2000
- Information Systems Professional of Canada, *ISP* - 1998

Affiliation

Canadian Information Processing Society (CIPS), member since 1996
Served on CIPS Alberta, Board of Directors 2010 – 2012 (*volunteer, retired*)